1991 - 1999 Youth Risk Behavior Survey Data

for Lincoln and Lancaster County

Surveillance Data and Analysis

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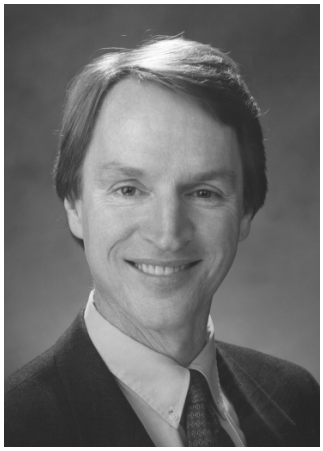

Mayor Don Wesely
City of Lincoln

The 1999 Youth Risk Behavior Survey provides important insight into the lives of our young people, our most precious resource. Few counties in the nation provide this local perspective on the risk behaviors of youth. I commend the staff of the Lincoln-Lancaster County Health Department for their expertise and hard work in preparing this document.

By looking at the actual experiences of our young people today, we can make better decisions about how we can keep them healthy. This report can be a valuable communication tool for youth, parents, educators, policy makers and community leaders. It is my hope that discussion of this report, compiled with goals identified in the Healthy People 2010 document, will contribute to the health of our community.

Leon F. Vinci, MPH
Health Director

The Lincoln-Lancaster County Health Department is pleased to bring you this 1999 edition of the Youth Risk Behavior Survey Report. This report provides a ten year trend of youth attitudes that affect health behaviors, gathered biennially in 1991, 1993, 1995, 1997, 1999 from youth in cooperating schools of Lincoln and Lancaster County.

The mission of the Lincoln-Lancaster County Health Department (LLCHD) is to assist the community and the citizens to assume responsibility for their individual health and the health of the community. The Department has provided leadership to this effort for the past 114 years. Unfortunately, social and environmental pressures on children and youth to engage in unhealthy behaviors compromises their well-being and future potential, and gives youth mixed signals of individual health responsibilities.

The Youth Risk Behavior Survey (YRBS) is an assessment tool that provides valuable information for devising effective programming to address youth health risk behaviors. YRBS also provides a communication tool between the youth of the community and parents, educators and policy makers entrusted with safeguarding their well-being.

ACKNOWLEDGMENTS

The Lincoln-Lancaster County Health Department's Health Promotion and Outreach Division and Epidemiology Program are responsible for the data analysis and publication of the Youth Risk Behavioral Survey report. Desktop publishing was provided by Joyce Endres.

A "special thank you" to the Lincoln and Lancaster County school administrators, teachers and students for participating in the 1999 Youth Risk Behavior Survey. The cooperation and commitment of the public and rural schools in partnering with the Health Department on this important pubic health survey is appreciated. The Health Department wishes to acknowledge the City of Lincoln, Lancaster County and the Lincoln-Lancaster County Board of Health for their commitment to the health and well-being of our young adults.

Partial funding for the Youth Risk Behavior Survey was made possible by a Preventive Health and Health Services (PHHS) block grant by the Division of Health Promotion and Education at the Nebraska Health and Human Services System; Jim Dills, Section Administrator.

For more information regarding the Youth Risk Behavioral Survey and Report, contact the Health Promotion and Outreach Division, Lincoln-Lancaster County Health Department, 3140 N Street, Lincoln, NE 68510; (402) 441-8045.

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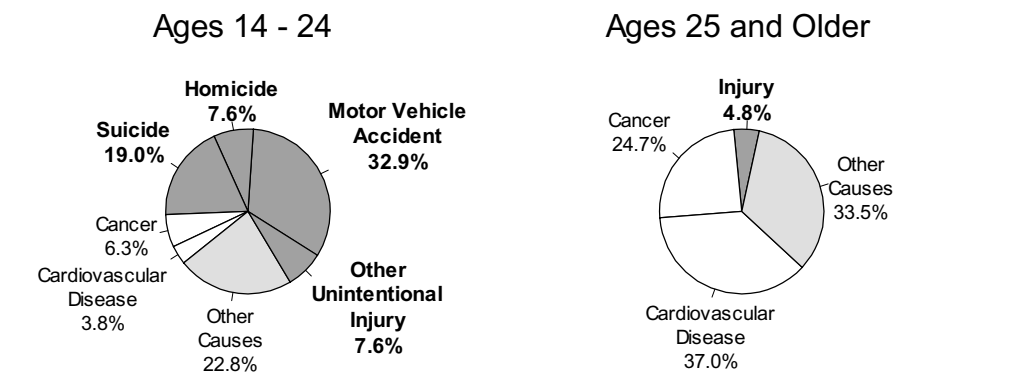
The Youth Risk Behavior Surveillance System

This report presents a comprehensive analysis of trends in youth risk behaviors in Lancaster County, as measured by the Youth Risk Behavior Survey (YRBS) administered in 1991, 1993, 1995, 1997 and 1999. Our report covers five areas of health risk behavior: unintentional and intentional injuries, tobacco use, alcohol and other drug use, sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, and physical activity.

This report, and the research data it is based on, was facilitated by the existence of a national Youth Risk Behavior Surveillance System (YRBSS). The national YRBS was first implemented in 1990 to measure prevalence among young people of behaviors that put their health at risk. The YRBSS is a coordinated system using a standardized survey tool and sampling methods reproduced in the majority of states and many localities across the United States.

Before the establishment of the YRBSS, there was little information on the prevalence of these important risk behaviors among youth in the United States.[1] Yet these areas of risk behavior are arguably the major precursors to death, illness and disability among Americans, not only in their teen years, but also later in adult life. Injuries alone account for the majority of deaths among youth and young adults under 25 -- in Lancaster County, motor vehicle crashes, other unintentional injuries, homicide and suicide accounted for 67% of all deaths to those 14 to 24 years of age *(see figure below)*. And although cardiovascular disease and cancer are the major killers of adults *(see figure)*, the majority of risk behaviors for these diseases are initiated during adolescence. Unintended teen pregnancy and sexually transmitted disease infection acquired in the teen years cause additional illness and death among youth, young adults, and their children.[2]

Causes of Death in Lancaster County
Years 1994 - 1998



Source: Lancaster County Vital Statistics, 1994 - 1998

The several purposes of Youth Risk Behavior Surveillance are to:

- Determine the prevalence and age of initiation of health-risk behaviors among teens
- Assess whether health-risk behaviors increase, decrease, or remain the same over time
- Allow researchers to examine the occurrence of risk behaviors among young people
- Provide comparable national, state and local data
- Monitor progress toward achieving Healthy People objectives and education goals[1]

Introduction: Youth Risk Behavior Surveillance

The Youth Risk Behavior Survey is an important surveillance, policy, and program management tool for communities, states, and the nation. YRBS data provide quantifiable evidence of serious health risks among youth which demand public attention and public health action. As such, the data are useful in raising public awareness of the extent of youth risk behaviors. YRBS data are tools for policy, helping to identify public health priorities and support the need for health education and other prevention efforts for children and youth. The YRBS is also a tools for prevention and intervention programs -- the data is instrumental in setting program goals and objectives, monitoring the progress and outcomes of public health and other community action, and implementing or modifying public health programs to address the behaviors of young people in priority issue areas.[3]

Data Collection and Analysis

Local data collection was made possible by the cooperation of Nebraska health officials coordinating the state YRBS, as well as the Nebraska YRBS contractor, the Buffalo Beach Company. The Lincoln-Lancaster County Health Department separately contracted with this company to obtain an "over-sample" of the Lancaster County portion of the state survey. This provides the additional sample size needed to obtain valid county-level statistics.

The Youth Risk Behavior Survey measures the prevalence of health-risk behaviors among adolescents through representative national, state, and local surveys conducted biennially. The national and state surveys use multi-stage cluster sampling to obtain samples of students in grades 9-12 reflecting the geographic, urban-rural, racial, gender, and grade makeup of the population in those grade levels. In Lancaster County, the great majority of public schools (urban and rural schools) have participated every year, with 100% participation in most years. The survey was conducted in randomly selected classrooms of a required period (second or third period). Parental consent was required beginning in 1997. This disrupted the results to some degree, but was carefully considered in the analysis of trends.

This report presents the following types of results from the analysis of YRBS data (1991-1999):

- Trend in behaviors from 1991 to 1999 (increases, decreases or unchanged level)
- Trends and differences among males and females
- Trends and differences among different grade levels
- Trends and differences by white or non-white status. YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white students and those who may be classified as "nonwhite" -- of minority race or Hispanic ethnicity.

Any statements made in this report about Lancaster County youth risk behaviors, whether changes over time or differences between groups, were based on review of statistically significant differences or changes (at a 95% confidence level) and a critical evaluation of consistent data trends. Our goal is to avoid misleading or invalid data comparisons while presenting the maximum in public health data to meet the wide variety of citizen information needs.

All statistics presented are "grade-adjusted" numbers (with the exception of data by grade). This was necessary because of large variations from year to year in the proportion of students in each grade that were surveyed (see Sample Demographics section). Because there are often substantial behavioral differences between students in younger and older grades, these differences in grade composition of

the sample from year to year interfered with valid comparison of behaviors between years or demographic groups. Data were therefore "grade-adjusted" to a common grade distribution (1991 Lincoln Public Schools enrollment), so that we are comparing "apples to apples", as it were.

The "grade adjustment" did not affect trend directions, comparisons of males to females or of white to nonwhite students, or overall conclusions from the data. But the procedure did remove bias due to this particular sampling problem, and often helped to smooth out unstable data trends over time.

Public Health Discussion

The efficacy of any health education program is closely linked to the public's perception of the risk. Music, movies and mass media frequently convey an impression of acceptance to high risk activities such as alcohol and drugs, tobacco, and sexual experimentation. These same sources of influence also give many negative impressions of physical activity and bodyweight to youth who are less than perfect. In most cases, the impression is that these behaviors are accepted across the world, creating tolerance levels which are counter productive to carefully planned health education programs.

A Public Health Discussion follows the interpretation of data for each of the risk factors within the Youth Risk Behavior Survey. The discussion looks at the risk from a public health view, not to repeat local findings, but to help the reader vision a safe and healthy community for youth to grow and mature. The discussion identifies roles and responsibilities for parents, the community and policy makers, those charged with providing safe and healthy environments for youth. The discussion attempts to identify growing youth needs through the risks measured. Some of the discussions are suggested actions, while others need a caring community of parents, community leaders and policy makers working in collaboration to find solutions.

Information sources to the discussion have been provided by Center for Disease Control, Healthy People 2010, and community agencies focused on the risks measured in the survey.

One thing is certain, adults must be willing to get involved in the challenges facing youth, or if left alone with todays music, movies and mass media, youth will mature with a set of values much different than those held important by parents, the community and policy makers.

1 Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health. "Assessing Health Risk Behaviors Among Young People: Youth Risk Behavior Surveillance System At-a-Glance 2000. <http://www.cdc.gov/nccdphp/dash/yrbs/yrbsaag.htm>

2 CDC. "Youth Risk Behavior Surveillance – United States, 1997." *Morbidity and Mortality Weekly Report, Surveillance Summary,* August 14, 1998. Vol. 47 (SS-3).

3 Modified from "Assessing Health Risk Behaviors ..." (Note 1).

Topic Areas

The Youth Risk Behavior Survey includes several questions within each major topic area of youth risk behaviors. Each question is an "indicator" that helps to measure a different aspect of a youth risk behavior. The subject matter, wording and sequence of the questions have been developed and used in the Youth Risk Behavior Survey for a decade. From time to time some questions have been added or subtracted or wording modified slightly to improve the survey tool. Most questions, however, have remained identical over the decade. Below is a brief summary of the questionnaire content on each of the topic areas.

Tobacco

Smoking frequency, intensity, history and cessation attempts; how cigarettes are obtained; smoking on school property; and smokeless tobacco and cigar use.

Alcohol

Drinking history, age at first use, current alcohol use, heavy drinking, drinking and driving, alcohol use prior to sex, and drinking on school property. The survey specifies to students that drinking alcohol "includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey" and "does not include drinking a few sips of wine for religious purposes."

Physical Activity

Intensity, frequency, and duration of exercise; strength training; physical education class; sporting teams; television viewing; and injury due to exercise or sports.

Suicide

Feeling sad and hopeless, considering suicide, planning suicide attempts, attempting suicide, and medical treatment due to a suicide attempt.

Violence

Physical fighting, weapons possession, injury as a result of physical fighting, weapon threats, school absence due to safety concerns, boyfriend/girlfriend abuse, and forced sexual intercourse.

Body Weight

Self-perceived weight, current weight loss/gain method, and body weight as it relates to exercise, diet, fasting, diet supplementation, and vomiting and laxative use.

Helmet and Seatbelt Use

Use of motorcycle helmets, bicycle helmets, and seatbelts.

Sexual Activity

Past sexual intercourse, number of sexual partners, age at first intercourse, alcohol and drug use, contraceptive use, history of pregnancy, and HIV/AIDS education.

Illegal Drugs

Use of marijuana, cocaine, inhalants, heroin, methamphetamine, steroids, and injected drugs, as well as marijuana use and drug acquisition on school property.

Executive Summary of Results: Youth Risk Behavior Survey, 1991-1999

Lancaster County, Nebraska

Alcohol

Trends in reported alcohol use by Lancaster County teens were mixed during the 1990s. General indicators for drinking history, current consumption, episodic heavy drinking, drunk driving, or alcohol or drug use prior to sex did not change substantially. However, the percentage of teens reporting that they first drank alcohol at 12 years old or younger declined from 1991 to 1999. These data were consistent with YRBS data for Nebraska. However, in contrast to local data, the U.S. YRBS reported no improvement or increases in current drinking and episodic heavy drinking.

In 1999, 80% of teens reported that they ever had a drink of alcohol for other than religious purposes. Nearly half (48%) reported having had a drink in the past 30 days, one-third (33%) reported episodic heavy drinking (five or more drinks in one sitting) in the past month, and 26% reported that they had their first alcoholic drink before the age of 13.

Tobacco

Several indicators of tobacco use among Lancaster County teens declined overall from 1991 to 1999. In 1999, teens were less likely than in previous years to report ever smoking, smoking daily, or using smokeless tobacco. These local declines in teen tobacco use in Lancaster County stand in contrast to unchanged or increasing trends in Nebraska and the nation. Additional positive trends included teen smokers reporting smoking fewer cigarettes and beginning smoking at a later age than in previous years. A strong decline was evident in the percentage of teens who obtain their cigarettes by purchasing them, with a parallel increase in the percentage reporting that another person purchased their cigarettes for them. There was little change in reported current cigarette use or quit attempts.

In 1999, 62% of teens reported that they had ever smoked a cigarette, 35% reported that they had smoked during the past 30 days, 11% reporting smoking daily during the past 30 days, and 8% of teens reported use of chewing tobacco or snuff during the past 30 days. Teen smokers were most likely to report smoking their first cigarette at age 13 or 14 (39%) and one-fourth (25%) reported having had their first cigarette at age 11 or 12. Smokers were most likely to report having obtained their cigarettes by having another person purchase the cigarettes for them (35%) or by borrowing them (33%). Eighteen percent of teen smokers and 10% of smokers under age 18 reported that they bought their cigarettes themselves. Nearly one-third (60%) of teen smokers reported having ever tried to quit smoking.

Illegal Drug Use

Reported experience with marijuana among Lancaster County teens increased, then declined, during the 1990s. Reported experience with inhalants and injected drugs declined and experience with other illegal drugs changed little. New 1999 questions provided baseline data on methamphetamine and heroin use. Stable or decreasing Lancaster County trends in most types of drug use contrast with increasing trends in Nebraska and/or the U.S. Reported current use (within the past 30 days) of marijuana and cocaine changed little. There were signs of teens marijuana use at earlier ages.

In 1999, 36% of teens reported ever having used marijuana, 18% reported having used it in the past 30 days, and 46% of those who had smoked marijuana reported having first used it at 13 or 14 years of age. Also in 1999, 6% of teens reported ever using cocaine, 7% reported ever using methamphetamine,

11% reported ever using inhalants, 2% reported ever using steroids without a doctor's prescription, and 1% reported ever injecting an illegal drug.

Violence

Reported rates of violence among Lancaster County teens declined from 1991 to 1999. There was a steady decline in reported involvement in physical fights and weapons possession (including guns) over the five biennial survey years. These trends were consistent with declining rates in Nebraska and the U.S. New questions in 1999 provided baseline data on abuse by one's boyfriend or girlfriend, as well as on forced sexual intercourse.

In 1999, 30% of teens reported having been involved in a physical fight in the past 12 months and 3% reported that they were medically treated for an injury due to a physical fight in the past 12 months. Fifteen percent of teens reported that they carried a weapon within the past 30 days and 5% reported that they carried a gun in the past 30 days. Seven percent of teens reported that their boyfriend or girlfriend had hit, slapped, or physically hurt them on purpose during the past 12 months, while 6% reported that they had ever been forced to have sexual intercourse against their will.

Suicide

Reported levels of suicide ideation (consideration and plans) and attempts among Lancaster County teens declined from 1991 to 1999. There was a steady decline over the five biennial survey years in the percentage of students who report seriously considering suicide, planning a suicide attempt, or attempting suicide. Reported medical treatment for suicide-related injury did not decline significantly. Declining rates of suicide ideation in Lancaster County were consistent with U.S. and Nebraska declines, but declining suicide attempts were not as apparent at the state or national level. A new 1999 question provided baseline data on depression.

In 1999, teens reported the following thoughts and behaviors in the past 12 months: 22% reported a period of depression, 18% reported that they seriously considered suicide, 15% reported that they planned a suicide attempt, 8% reported that they attempted suicide, and 2% reported that they had to receive medical treatment for an injury resulting from a suicide attempt.

Helmet and Seatbelt Use

There was little improvement from 1991 to 1999 in reported usage of bicycle or motorcycle helmets by Lancaster County teens. Reported seatbelt use improved from 1991 to 1993 but thereafter changed little. These trends were consistent with trends in the same indicators for Nebraska and the nation.

In 1999, 36% of teens reported that they always wear a seatbelt while riding in a car driven by someone else.

Among the 22% of teens who reported riding a motorcycle in the past 12 months, 36% reported that they never or rarely wear a helmet while riding. Among the 78% who reported riding a bicycle in the past 12 months, 91% reported that they never or rarely wear a helmet.

Sexual Activity

Reported levels of sexual activity among Lancaster County teens declined from 1991 to 1999. There was a steady decline in general indicators of sexual activity, including ever having had intercourse, more than one sexual partner, and sex in the past 3 months. Alcohol and drug use continue to be a major influence on youth sexual activity and reported contraceptive use showed little improvement from 1991 to 1999. Failure to use effective birth control or protection from sexually transmitted diseases continues to be prevalent among sexually active students. These trends in indicators of sexual behavior parallel the same indicators for Nebraska and the nation as a whole.

In 1999, 36% of teens reported ever having had sexual intercourse, 23% reported having had sex within the past 3 months, 19% reported having had more than one sexual partner, and 13% reported having first had sex at age 12 or younger. Among those who reported having had sex, 29% reported alcohol or drug use prior to their last sexual encounter and 62% reported having used a condom in their last sexual encounter.

Physical Activity

Reported physical activity among Lancaster County teens increased over the 1990s in the areas of strength training, team sports and moderate physical activity. However, reports of vigorous physical activity and participation in school physical education classes did not change noticeably during the 1990s. These trends contrast with state and national trends, mainly in increasing local reports of moderate exercise and strengthening exercise, compared with level trends in Nebraska and the nation. Local trends in other physical activity indicators were similar to state and nation. New questions in 1999 provided baseline data on hours of television viewing and injuries due to physical activity.

In 1999, 68% of teens reported vigorous physical activity, 28% reported moderate physical activity and 58% reported strengthening exercise in the past 7 days. Participation in sports teams was reported by 64% and enrollment in a school physical education class was reported by 41%. Forty-one percent of teens reported being treated by a doctor or nurse due to an injury received while being physically active, and 29% of teens reported watching three or more hours of television per school day.

Body Weight

During the 1990s, indicators of exercise and dieting for weight loss or weight control by Lancaster County teens increased, while the percentage of teens perceiving themselves as overweight changed little. Reported prevalence of using diet supplements without a doctor's prescription, vomiting or laxative use remained unchanged over the period. A new question in 1999 provided baseline data on fasting. YRBS data for Nebraska and the U.S. indicated little change in reported overweight or weight loss intent.

In 1999, 33% of teens reported that they viewed themselves as overweight, and 46% reported that they were currently trying to lose weight. Nearly one-third (60%) reported that they exercised in the past 30 days in order to lose or maintain their weight and 42% reported that they dieted in the past 30 days for the same reason. The following weight loss behaviors were also reported: fasting for a 24 hour period (10%), diet supplements without a doctor's advice (6%), and vomiting or laxative use (4%).

Alcohol

The Youth Risk Behavior Survey includes questions on drinking history, age at first use, current alcohol use, heavy drinking, drinking and driving, alcohol use prior to sex, and drinking on school property.
The survey specifies to students that drinking alcohol "includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey" and "does not include drinking a few sips of wine for religious purposes."

Overall Trends

Trends in reported alcohol consumption by Lancaster County teens were mixed during the 1990s. General indicators for drinking history and current consumption changed little from 1991 to 1999, but the percentage of teens reporting that they first drank at age 12 or younger declined (Figure 1).

In 1999, 79.8% of teens reported having ever drunk alcohol, other than a few sips, in their lifetime. This was not significantly higher than the 77.9% reported in 1991.

The percentage of teens who reported current drinking (drinking in the past 30 days) or episodic heavy drinking (five or more drinks in one sitting in the past 30 days) changed little over the decade. In 1999, 47.7% of teens reported drinking in the past 30 days and 32.6% reported heavy drinking in the past 30 days. Among those who drank in the past 30 days, 67.6% reported episodic heavy drinking.

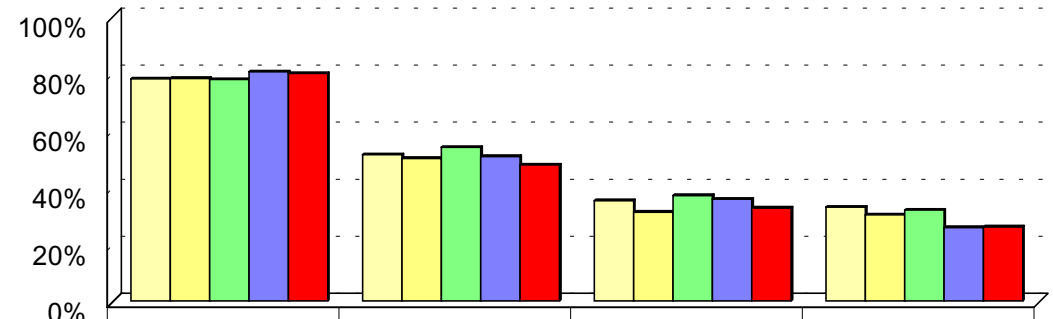
A positive trend among indicators of alcohol consumption was the percentage of teens who reported having first drunk alcohol, other than a few sips, at younger than 13 years of age. This percentage declined from 1991 (32.9%) to 1999 (26.0%).

These trends in reported alcohol consumption generally held true among respondents of different grades, males as well as females, and white and non-white teens. See the following pages for detail.

Marginal local declines in alcohol consumption were consistent with YRBS data for Nebraska (1993 to 1997)[1]. However, the U.S. YRBS (1991 to 1999)[2] reported no improvement or increases in current drinking and episodic heavy drinking .

1 Tables published by Buffalo Beach Company, Lincoln, NE
2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Alcohol Consumption*
High School Students



	Ever Drank Alcohol	Drank in Past 30 Days	Episodic Heavy Drinking** Past 30 Days	First Drank at Age 12 or Younger
1991	77.9%	51.3%	35.2%	32.9%
1993	78.1%	50%	31.2%	30.2%
1995	77.7%	53.9%	37%	31.9%
1997	80.4%	50.7%	35.7%	25.8%
1999	79.8%	47.7%	32.6%	26%

** Five drinks at one sitting

*Grade Adjusted

Drinking on School Property, Drinking and Driving, and Drinking and Sex

Reported teen drinking on school property declined from 1993 to 1999. There was no change in reports of drunk driving. Alcohol and drug use continue to be major influences on teen sexual activity in Lancaster County.

In 1999, 3.6% of teens reported drinking on school property during the past 30 days **(Fig. 2)**. This represents a decline over the period since 1993, when 6.4% reported consumption on school property. In contrast, YRBS reports have shown increases in drinking on school property in Nebraska and the U.S. as a whole.

The percent of teens reporting that, in the past 30 days, they drove after drinking or rode in a car driven by someone who had been drinking changed little from 1991 to 1999 **(Fig. 3)**. In 1999, 1 in 5 students (19.8%) reported that they drove after drinking and over one-third (37.1%) reported having ridden, during the past 30 days, in a car driven by someone who had been drinking.

Alcohol and drug use continue to be major influences on teen sexual activity in Lancaster County **(Fig. 4)**. The percentage of teens (who have had sex) reporting alcohol and drug use prior to their last sexual encounter was higher in 1999 (28.9%) than it had been in previous survey years, although the increase from 1991 to 1999 was not statistically significant.

Figure 2: Alcohol Consumption On School Property*
High School Students, Reported During the Past 30 Days

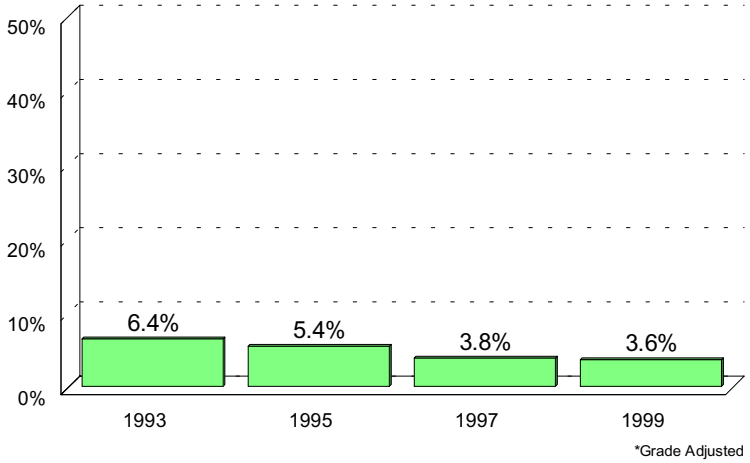


Figure 3: "Drunk Driving"*
High School Students Who Reported That During the Past 30 Days They Drove After Drinking and Rode With Someone Drinking

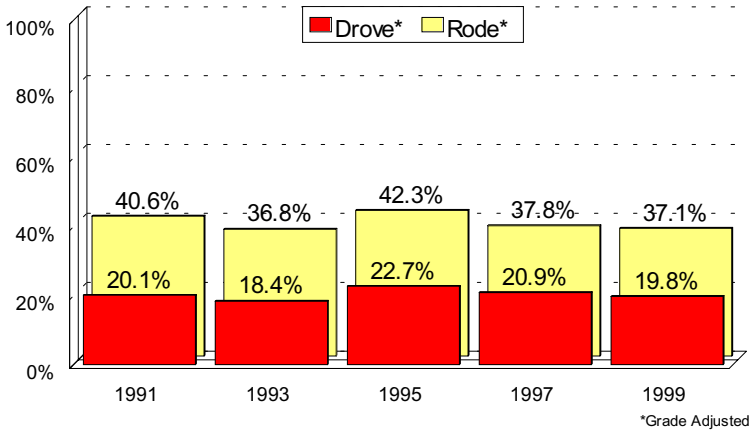
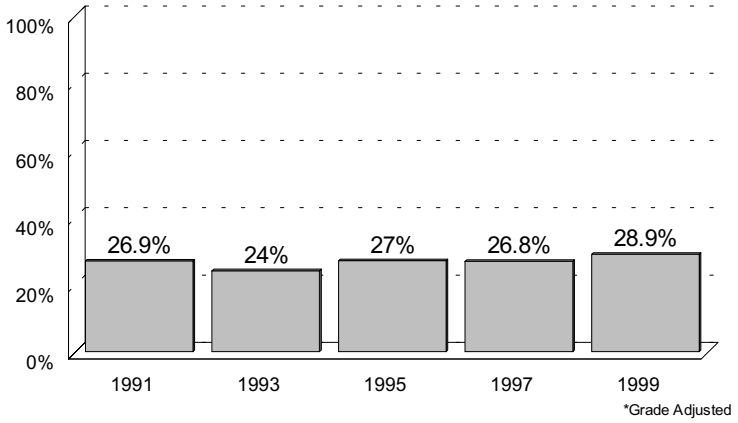


Figure 4: Alcohol or Drug Use Prior to Last Sexual Intercourse*
High School Students Who Reported Having Had Sex



Alcohol

Differences by Gender

During the 1990s, male and female teens have generally been equally likely to report alcohol consumption behaviors of concern. Exceptions include reports of first alcohol consumption before age 13, drinking and driving, and drinking on school property, all of which were more prevalent among males than among females.

With the exception of a decline in reported first consumption before age 13 by females, no other alcohol consumption indicators changed from 1991 to 1999 for either sex (Figs. 5 - 9).

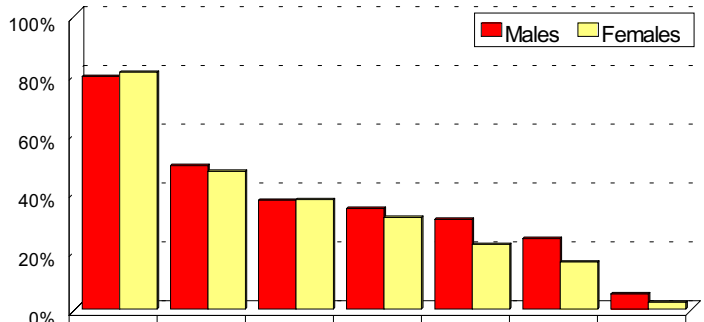
A cross section of 1999 responses illustrates an apparent tendency for males to report alcohol consumption risk behaviors at slightly higher rates than females **(Fig. 5)**. However, the only statistically significant gender gaps were higher male prevalence of reported alcohol consumption before age 13, drinking and driving, and drinking on school property.

From 1991 to 1999, little change occurred among male or female teens in reported alcohol consumption during their lifetimes or reported drinking during the past 30 days **(Fig. 6)**. In 1999, 80.4% of females and 79.0% of males reported ever having drunk alcohol other than a few sips (and not for religious purposes) in their lifetimes. Nearly half of all teens, male (48.7%) and female (46.7%), reported having drunk alcohol within the past 30 days.

The percentage of teens who reported drinking five or more drinks in a row in one sitting during the past 30 days also changed little for both male and female teens during the 1990s **(Fig. 7)**. Approximately one-third of both males and females reported this indicator of episodic heavy drinking in 1999.

Figure 5: Alcohol Consumption*

1999 High School Students

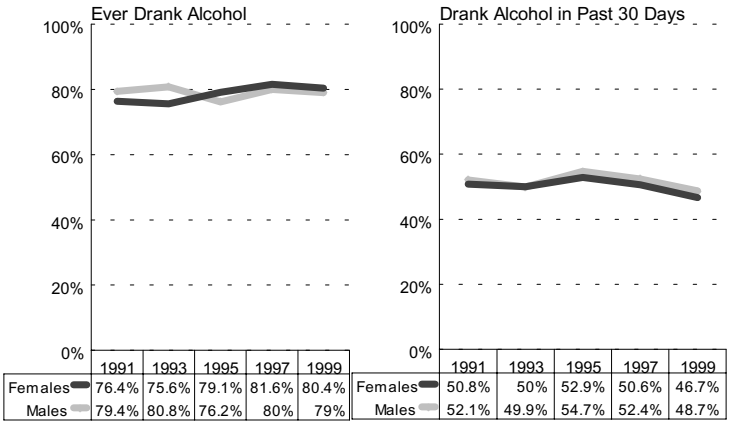


	Ever Drank	Drank in Past 30 Days	Rode With Drinking Driver Past 30	Episodic Heavy Drinking Past 30	First Drank at 12 or Younger	Drove After Drinking Past 30	Drank On School Prop. Past 30
Males	79%	48.7%	36.9%	34.1%	30.4%	23.9%	5.1%
Females	80.4%	46.7%	37.1%	31.1%	21.9%	15.9%	2.2%

*Grade Adjusted

Figure 6: Ever/Recently Drank Alcohol*

High School Students



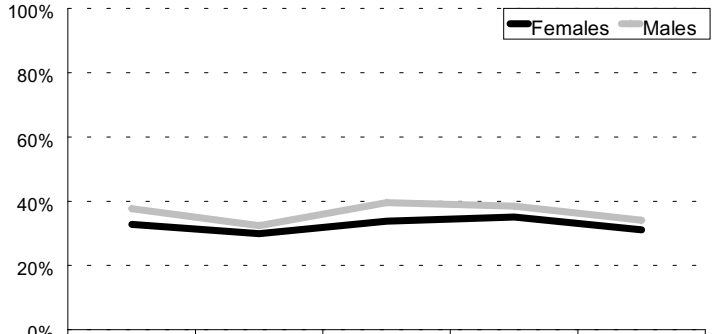
	1991	1993	1995	1997	1999
Females	76.4%	75.6%	79.1%	81.6%	80.4%
Males	79.4%	80.8%	76.2%	80%	79%

	1991	1993	1995	1997	1999
Females	50.8%	50%	52.9%	50.6%	46.7%
Males	52.1%	49.9%	54.7%	52.4%	48.7%

*Grade Adjusted

Figure 7: Episodic Heavy Drinking*

High School Students Who Reported Drinking 5+ Drinks In One Sitting During the Past 30 Days



	1991	1993	1995	1997	1999
Females	32.8%	29.9%	33.8%	35.1%	31.1%
Males	37.7%	32.4%	39.6%	38.5%	34.1%

*Grade Adjusted

Alcohol

Differences by Gender

Reported first alcohol consumption at age 12 or younger appears to have declined during the 1990s for both male and female teens **(Fig. 8)**. However, only the decline among males -- from 38.2% to 30.4% -- was statistically significant.

As at the beginning of the decade (1991), in 1999 males remained more likely (30.4%) than females (21.9%) to report first alcohol consumption at age 12 or younger.

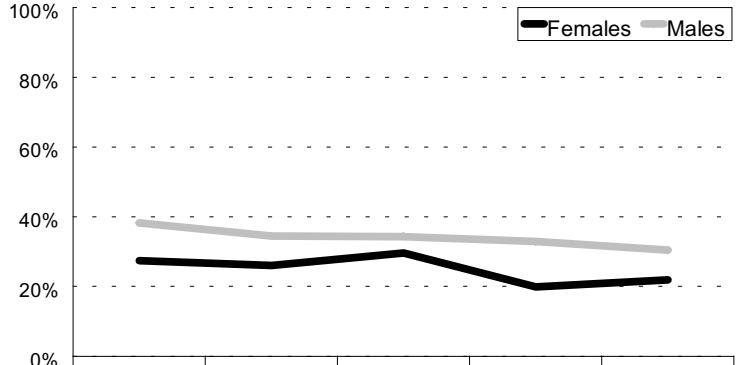
In 1999, as in previous years, male and female teens were equally likely to report riding with a drinking driver, although over the 1990s males became more likely to report driving after drinking **(Fig 9).**

Male and female teens were similarly likely (both 37% in 1999) to report having ridden in the past 30 days with a driver who had been drinking. There was no statistically significant change in this indicator for either sex.

With respect to driving after drinking, a gender gap developed during the 1990s, with males becoming more likely (23.9% in 1999) than females (15.9% in 1999) to report having driven after drinking in the past 30 days.

Figure 8: First Alcohol Consumption*

High School Students Who Reported Their First Drink of Alcohol ("Other Than a Few Sips") at 12 or Younger

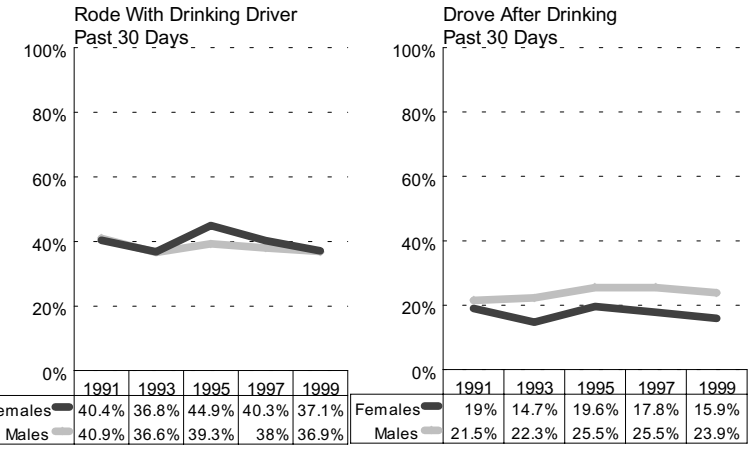


	1991	1993	1995	1997	1999
Females	27.4%	26%	29.6%	19.9%	21.9%
Males	38.2%	34.5%	34.3%	32.9%	30.4%

*Grade Adjusted

Figure 9: "Drunk Driving"*

High School Students



	1991	1993	1995	1997	1999
Females	40.4%	36.8%	44.9%	40.3%	37.1%
Males	40.9%	36.6%	39.3%	38%	36.9%

	1991	1993	1995	1997	1999
Females	19%	14.7%	19.6%	17.8%	15.9%
Males	21.5%	22.3%	25.5%	25.5%	23.9%

*Grade Adjusted

Alcohol

Differences by Grade

During the 1990s, teens in older grades were more likely than those in younger grades to report alcohol consumption. For all alcohol indicators, there was little discernible increase or decrease over time within individual grades (Figs. 10-13).

As with other risk behaviors, teens in older grades were considerably more likely to report alcohol consumption behaviors **(Fig. 10)**. For example, in 1999, episodic heavy drinking (more than five drinks in one sitting) was reported by nearly twice as many 12th graders (39.9%) as 9th graders (22.4%).

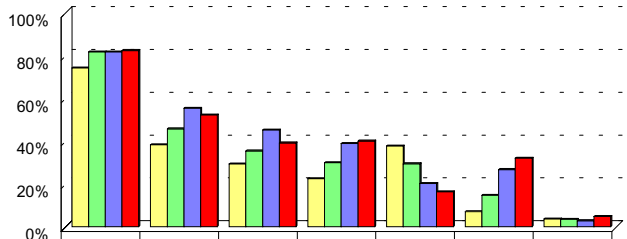
The percentage of teens who reported ever drinking alcohol appeared to increase slightly among 9th and 10th graders from 1991 to 1999, but this increase was not statistically significant **(Fig. 11)**. The percentage of teens who reported drinking or episodic heavy drinking in the past 30 days also changed little over the decade by individual grade **(Figs. 12 and 13)**.

In 1999, as in earlier years, those in 11th and 12th grade have consistently been more likely (53.5%) than 9th and 10th graders (40.3%) to report that they drank in the past 30 days. Similarly, in 1999 11th and 12th graders were more likely (39.4%) than 9th and 10th graders (24.5%) to report that they engaged in episodic heavy drinking over the past 30 days.

During the 1990s, reported rates of drunk driving or riding with a drunk driver changed little by grade (as was true for teens as a whole - **Fig. 1**) and varied little from grade to grade.

Figure 10: Alcohol Consumption by Grade

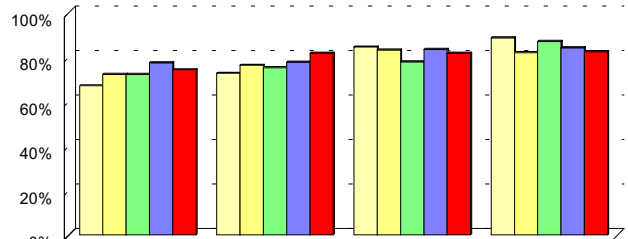
1999 High School Students



	Ever Drank	Drank in Past 30 Days	Rode With Drinking Driver Past 30	Episodic Heavy Drinking Past 30	First Drank at 12 or Younger	Drove After Drinking Past 30	Drank On School Prop. Past 30
9th	74.1%	38.2%	29.2%	22.4%	37.6%	6.9%	3.5%
10th	81.5%	45.6%	35.3%	29.8%	29.3%	14.6%	3.4%
11th	81.5%	55.2%	45.1%	38.8%	20.1%	26.6%	2.7%
12th	82.2%	52.1%	39%	39.9%	16.2%	31.9%	4.7%

Figure 11: Ever Drank by Grade

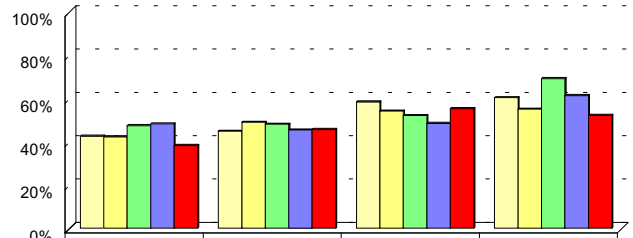
High School Students Who Reported Ever Drinking Alcohol, other than a few sips, During Their Lifetime



	9th	10th	11th	12th
1991	66.9%	72.5%	84.3%	88.4%
1993	72%	76.1%	82.9%	81.8%
1995	72%	75%	77.6%	86.8%
1997	77.2%	77.5%	83.2%	83.9%
1999	74.1%	81.5%	81.5%	82.2%

Figure 12: Alcohol Consumption by Grade

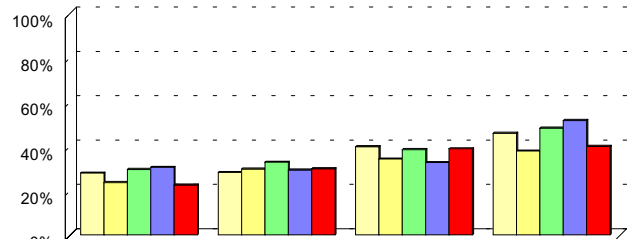
High School Students Who Reported Drinking Alcohol During the Past 30 Days



	9th	10th	11th	12th
1991	42.5%	44.8%	58.3%	60.3%
1993	42.2%	48.9%	54.1%	55%
1995	47.4%	48.1%	52%	69.1%
1997	48.2%	45.4%	48.4%	61.3%
1999	38.2%	45.6%	55.2%	52.1%

Figure 13: Episodic Heavy Drinking by Grade

High School Students Who Reported Drinking 5+ Drinks In One Sitting During the Past 30 Days



	9th	10th	11th	12th
1991	27.8%	28.1%	39.7%	45.8%
1993	23.6%	29.6%	34.2%	37.8%
1995	29.5%	32.7%	38.4%	48.1%
1997	30.4%	29.2%	32.6%	51.6%
1999	22.4%	29.8%	38.8%	39.9%

Alcohol

Differences by Race

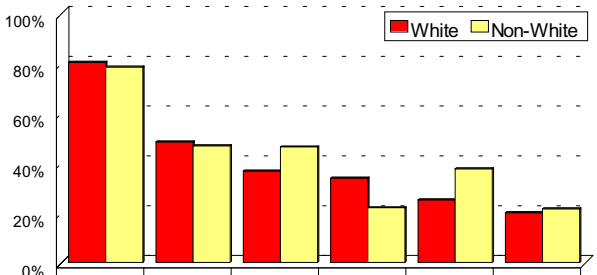
In 1999, as in previous survey years, white and non-white teens reported similar rates of alcohol consumption, on most behavioral indicators.

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

A cross-section of alcohol use indicators reported by students in 1999 suggests that many of these behaviors were more prevalent among white teens than non-white teens **(Fig. 14)**. However, only for reported episodic heavy drinking was the white rate significantly higher (a statistically significant difference) than the non-white rate. Non-white teens were more likely than white teens to report that they first drank alcohol before 13 years of age.

During the 1990s there was no white/non-white disparity or any increase/decrease among either group for reported lifetime alcohol use or alcohol use in the past 30 days **(Fig. 15)**. Reported episodic heavy drinking was more prevalent among white than non-white teens at the beginning (1991) and end (1999) of the decade **(Fig. 16)**. The percentage of teens reporting first drinking before age 13 was higher for non-white teens, and declined for white teens, from 32.9% in 1991 to 25.0% in 1999 **(Fig. 17)**. White and non-white teens did not differ in reported drinking and driving behaviors.

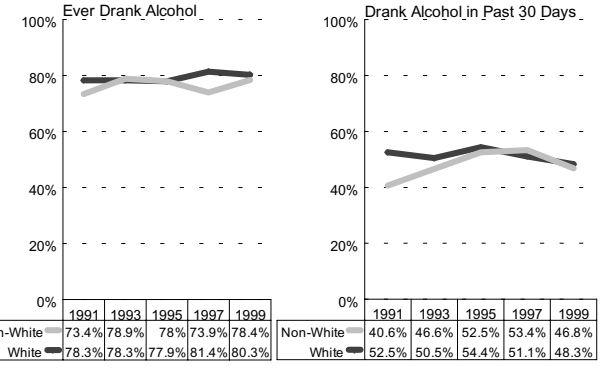
Figure 14: Alcohol Consumption*
1999 High School Students



	Ever Drank	Drank in Past 30 Days	Rode With Drinking Driver Past 30	Episodic Heavy Drinking Past 30	First Drank at 12 or Younger	Drove After Drinking Past 30
White	80.3%	48.3%	36.6%	33.8%	25%	19.9%
Non-White	78.4%	46.8%	46.3%	21.9%	37.5%	21.4%

*Grade Adjusted

Figure 15: Ever/Recently Drank Alcohol*
High School Students

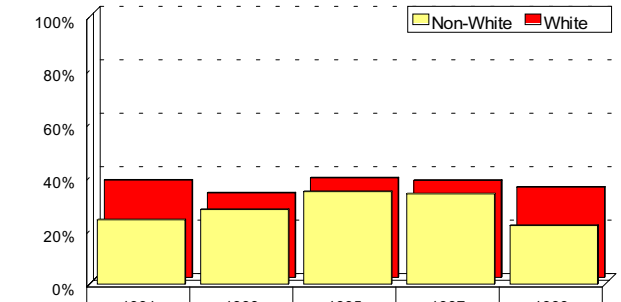


	1991	1993	1995	1997	1999
Non-White	73.4%	78.9%	78%	73.9%	78.4%
White	78.3%	78.3%	77.9%	81.4%	80.3%

	1991	1993	1995	1997	1999
Non-White	40.6%	46.6%	52.5%	53.4%	46.8%
White	52.5%	50.5%	54.4%	51.1%	48.3%

*Grade Adjusted

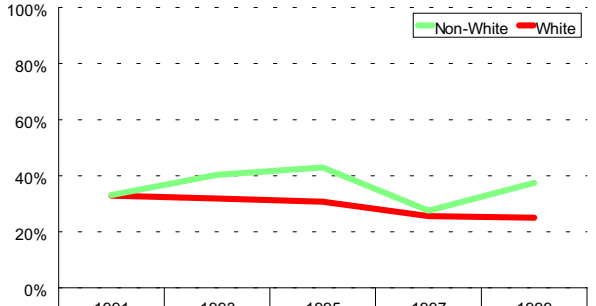
Figure 16: Episodic Heavy Drinking*
High School Students Who Reported Drinking 5+ Drinks In One Sitting During the Past 30 Days



	1991	1993	1995	1997	1999
Non-White	24%	27.9%	34.6%	33.7%	21.9%
White	36.4%	31.6%	37.2%	36.3%	33.8%

*Grade Adjusted

Figure 17: First Alcohol Consumption*
High School Students Who Reported First Consuming Alcohol, other than a few sips, at 12 or Younger



	1991	1993	1995	1997	1999
Non-White	33.1%	40.3%	43%	27.6%	37.5%
White	32.9%	31.9%	30.8%	25.6%	25%

*Grade Adjusted

Alcohol

Health Objectives for the Year 2010: *Reduce death, injury and socio-economic consequences of alcohol and other drug abuse. Educate the public on the dangers of alcohol and other drug abuse.*

Public Health Discussion

While alcohol abuse is one of the most important contributors to preventable morbidity (psysical and psychological injury) and mortality (death) in contemporary America, it is also one of the most difficult public health challenges. Evidence clearly demonstrates that alcohol abuse is associated with high risks of acute health problems such as serious injury associated with auto crashes, unplanned and unsafe sex, assault and aggressive behavior, and a broad spectrum of drinking-related social and psychological problems. Other leading causes of death and long-term disability for youth reported to involve alcohol are suicides, homicides, drownings, and recreational injuries.

Approximately one third of the deaths among persons aged 15 to 24 years are the result of motor vehicle related crashes. Among those who drive after drinking, the relative risk of being involved in a crash is greater for young persons at all blood alcohol concentrations than it is for older persons.[1] There are indications that those who drink at a young age are at higher risk of later addiction. Delaying the age of initiation into regular drinking may have beneficial effects in reducing rates of addiction to alcohol and other drugs.

Where and how adolescents obtain alcohol should be of great concern to parents, the community and policy makers. The alcohol for a youth's initial drinking is occasionally acquired from parent's supply in the home (with or without permission). More frequently, the alcohol is provided by older siblings or friends, typically at parties. Some parents provide alcohol to their underage children in exchange for agreements to consume the alcohol in their own home, rather than frequenting parties elsewhere or visiting bars and taverns. Older adolescents are known to "break in" younger adolescents to drinking by encouraging them to become very intoxicated. Drinking at parties appears to be the result of easy availability, not premeditated efforts to find alcohol.

Examination of societal norms and parental attitudes toward underage drinking may be important steps in reducing adolescent drinking and driving. Parental attitudes toward alcohol and underage drinking vary greatly. Strategies that address the relative ease with which adolescents can purchase alcoholic beverages have been shown to be influential in reducing alcohol consumption and motor vehicle crashes. Policy measures that have been widely suggested include: Strict enforcement of laws prohibiting the use of alcohol by youth, strict regulation of alcohol advertising, promotion of educational programs for servers (bartenders, waiters, store clerks, etc), encouragement of alcohol-free youth parties, and a change in community practices that make alcoholic beverages easily accessible to underage youth.

"YRBS data supports the need for all of us — the community, the high schools, and the universities — to work collaboratively in order to reduce high-risk drinking at its true starting point."

Linda Major, Project Director
NU Directions, University of Nebraska - Lincoln

Parental Roles and Responsibilities:

Role modeled parental behaviors toward alcohol and open discussions with their children are significant in youth perception and subsequent behaviors.

Parents need to explain the risks associated with alcohol to their adolescents. Provide information that is honest, accurate, and without exaggeration. The truth is sobering. Drinking and driving do not mix. The ramifications of participating in any alcohol related activities should be clearly explained for youth. Support recreational opportunities for youth that are alcohol free.

Community Roles and Responsibilities:

Support strict enforcement of laws governing the sale of alcohol to minors.

Refuse to be sympathetic to merchants who break laws, including any adults who aid or abet minors in procuring prohibited substances. Be a role model for teenagers. Encourage health education campaigns and programs that seek to educate not only the youth, but the adults and institutions of the community as well. Support responsible server programs. Encourage the development of recreational opportunities for youth in settings that are alcohol and drug free, but which engage their creativity and enhance the sense of self worth.

Policy Makers' Roles and Responsibilities:

Examine existing methods by which minors are able to procure alcohol and create strategies to make alcohol less accessible.

1. Provide strict enforcement of laws governing the sale of alcohol to minors.
2. Revoke or suspend the license of merchants who sell alcohol to minors.
3. Fund the development of recreational opportunities for youth in settings that are alcohol and drug free.
4. Provide stricter regulation in alcohol advertising, especially when that advertising is particularly appealing to minors.
5. Support and fund collaborative health education campaigns and programs for youth, adults and institutions of the community.

References:

1. Lincoln-Lancaster County Health Department. "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000, D18-23

Tobacco

The Youth Risk Behavior Survey includes questions on smoking frequency, intensity, history and cessation attempts; how cigarettes are obtained; smoking on school property; and smokeless tobacco and cigar use.

Overall Trends

Reported levels of tobacco use among Lancaster County teens declined from 1991 to 1999. There was a steady decline in general indicators for tobacco over the five biannual survey years (Figure 1).

In 1999, 61.9% of teens reported having ever tried cigarettes, even one or two puffs, during their lifetime. This represents decline since 1991, when 72.8% of teens surveyed reported having tried cigarettes.

There was also a clear decline in reported daily smoking. The percentage of teens reporting that they smoked every day during the past 30 days decreased from 18.3% in 1991 to 10.7% in 1999. Reports of current smoking (past 30 days) appear to have declined from 1991 to 1999, although the decline was not statistically significant and inter-year variation was considerable.

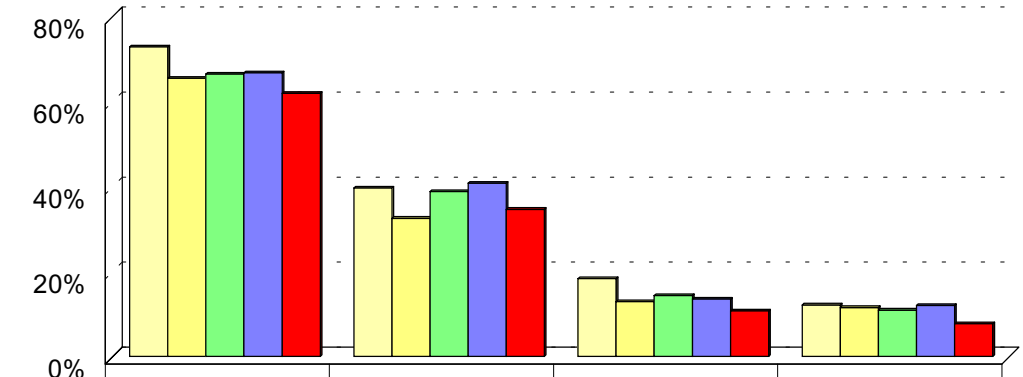
Reported smokeless tobacco use (past 30 days) also declined from 12.1% to 7.7% over the period. A new question in 1999 placed use of "cigars, cigarillos or little cigars" in the past 30 days at 20.1% of teens.

The decline in reported tobacco use, 1991 to 1999, occurred not only in the entire YRBS sample, but also among respondents of different grades, among males as well as females, and white and non-white teens. See the following pages for detail.

Local declines in indicators of tobacco use (those shown below and on the following pages) diverged from trend data available for Nebraska and the nation. Trend data for both Nebraska (1993 to 1997)[1] and U.S. (1991-1999)[2] indicated either little change or increases through 1997 on key tobacco indicators. An exception was smokeless tobacco use, for which both Lancaster County and U.S. indicators were in decline.

1 Tables published by Buffalo Beach Company, Lincoln, NE
2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Tobacco Use*
High School Students



	Ever Tried Smoking	Smoked During Past 30 Days	Smoked Every Day Past 30 Days	Chew/Snuff Past 30 Days
1991	72.8%	39.6%	18.3%	12.1%
1993	65.4%	32.5%	12.9%	11.5%
1995	66.4%	38.8%	14.3%	10.9%
1997	66.7%	40.7%	13.5%	12%
1999	61.9%	34.6%	10.7%	7.7%

*Grade Adjusted

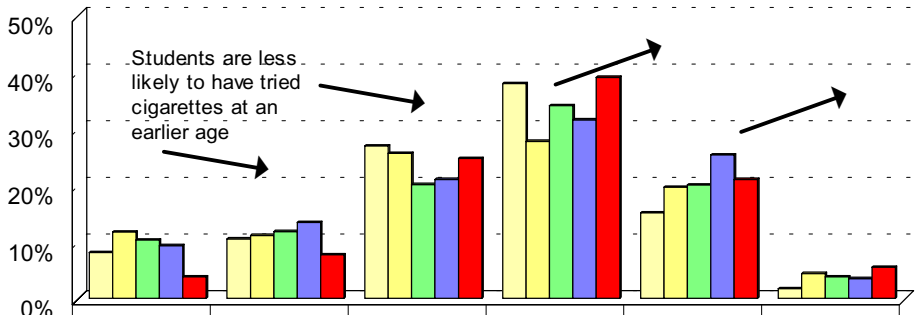
Age at First Cigarette Use; Intensity of Cigarette Use

In 1999, teens reported beginning smoking at a later age than in previous surveys (Fig. 2).

Among teens who reported ever smoking a whole cigarette (which declined 1991-1999), the percentage reporting their first cigarette at 12 years of age or younger declined from 1991 to 1999 **(Fig. 2)**. Accordingly, the percentage of those who reported first smoking at an older age (13 or older) increased over the period.

Teens in 1999 were 2.1 times less likely than in 1991 to report smoking their first whole cigarette at 8 years of age or younger.

Figure 2: Age at First Use*
High School Students Who Reported Ever Smoking a Whole Cigarette



	8 years or younger	9-10 years old	11-12 years old	13-14 years old	15-16 years old	17+ years old
1991	8.1%	10.5%	26.9%	37.9%	15.1%	1.7%
1993	11.7%	11.1%	25.6%	27.7%	19.6%	4.4%
1995	10.3%	11.8%	20.1%	34%	20%	3.8%
1997	9.3%	13.4%	21%	31.5%	25.3%	3.5%
1999	3.8%	7.7%	24.7%	39%	21%	5.5%

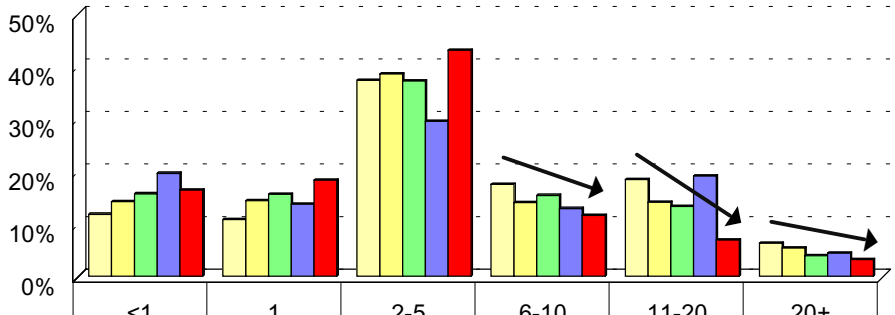
*Grade Adjusted

Teens in 1999 reported smoking fewer cigarettes per day than in previous survey years (Fig. 3).

Among teens who reported smoking in the past 30 days, the number of cigarettes teens reported smoking on the days they smoked declined during the 1990s. The average number of daily cigarettes reported by smokers declined from 5.6 in 1991 to 3.7 in 1999.

This decline in number of cigarettes smoked can also be seen in the declining percentage of teen smokers reporting smoking more than five cigarettes per day **(Fig. 3)**. These declines were strongest for the percentage reporting 6 to 10 cigarettes per day or 11 to 20 cigarettes per day.

Figure 3: Number of Cigarettes Smoked Per Day*
High School Students Who Reported Smoking During the Past 30 Days



	<1 Cigarette Per Day	1 Cigarette Per Day	2-5 Cigarettes Per Day	6-10 Cigarettes Per Day	11-20 Cigarettes Per Day	20+ Cigarettes Per Day
1991	11.8%	10.8%	37.3%	17.5%	18.4%	6.3%
1993	14.2%	14.4%	38.5%	14%	14.1%	5.4%
1995	15.7%	15.6%	37.2%	15.4%	13.3%	3.9%
1997	19.6%	13.7%	29.5%	12.9%	19.1%	4.4%
1999	16.4%	18.3%	43%	11.6%	6.9%	3.2%

* Number of cigarettes smoked per day, on the days they smoked Grade Adjusted

How Cigarettes are Obtained; Cessation Attempts; Smoking on School Property

In 1999, declines from previous years were evident in the percentage of teens who reported obtaining cigarettes by purchasing the cigarettes themselves (Fig. 4). Reported tobacco use on school property declined between 1995 and 1999 (Fig. 5). There was no change in reported smoking quit attempts (Fig. 6).

Teen smokers (those who smoked in the past 30 days) were 2.3 times less likely in 1999 than teens in 1995 to report purchasing cigarettes at a store. Among teens who reported smoking in the past 30 days, the percentage reporting having bought their cigarettes decreased dramatically over the four year period from 1995 (42.3%) to 1999 (18.1%) **(Fig. 4)**.

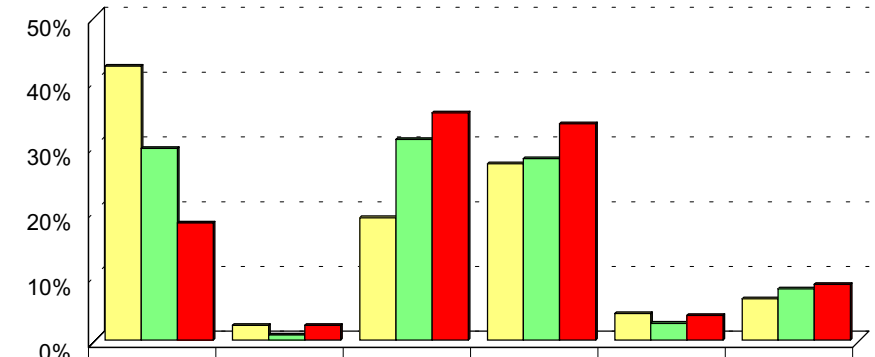
Reports by teens of having another person buy cigarettes for them increased from 1995 to 1999, at the same time as reports of buying cigarettes decreased **(Fig. 4)**. In 1995, teens most frequently repoted that they got their cigarettes by buying them themselves. By 1999, teens most frequently reported that they obtained their cigarettes by having another purchase for them, using the teen's money.

Both reports of cigarette use and smokeless tobacco use on school property (during the past 30 days) declined overall from 1993 to 1999 **(Fig. 5)**. Declines were strongest after 1995 for reported smokeless tobacco use and after 1997 for reported cigarette use on school property.

The percentage of teen smokers (smoked in the past 30 days) who reported quit attempts was higher in 1999 (60.1%) than in previous years but this was not a statistically significant increase **(Fig. 6)**.

Figure 4: How Cigarettes Are Usually Obtained*

High School Students Who Reported Smoking During the Past 30 Days

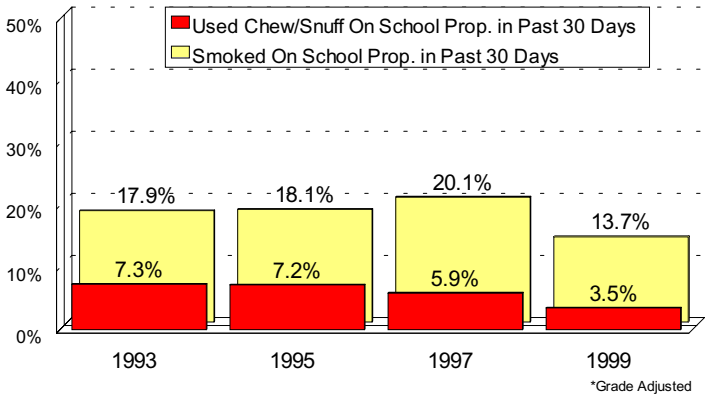


	Bought at Store	Vending Machine	Other Purchased For Me	Borrowed Them	Stole Them	Some Other Way
1995	42.3%	2.3%	18.9%	27.2%	4.1%	6.4%
1997	29.6%	0.8%	31%	28%	2.6%	7.9%
1999	18.1%	2.3%	35.1%	33.4%	3.8%	8.6%

*Grade Adjusted

Figure 5: Tobacco On School Property*

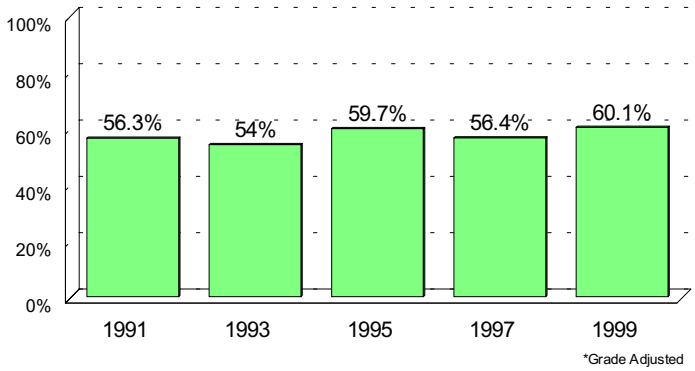
High School Students



*Grade Adjusted

Figure 6: Ever Attempted to Quit*

High School Students Who Reported Smoking During Past 30 Days



*Grade Adjusted

Differences by Gender

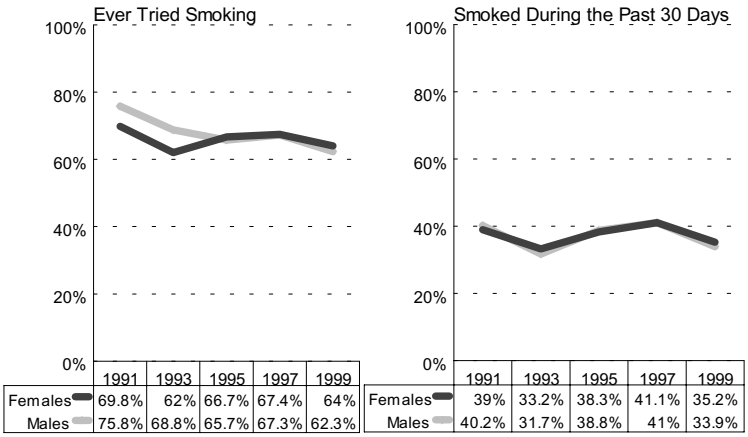
In 1999, female and male teens were similarly likely to report the standard indicators of tobacco use (Figs. 7 and 8), with the exception of higher male rates of smokeless tobacco use (Fig. 9). A decreasing percentage of males reported ever smoking in their lives. Reported daily smoking declined for both males and females.

From 1991 to 1999, a declining percentage (75.8% to 62.3%) of male teens reported ever trying cigarettes, but there was no statisically significant decline for females **(Fig. 7)**. In 1991, males were more likely than females to report having ever tried smoking. By 1999, males and females were equally likely to report having ever tried smoking. Female and male teens reported similar patterns in smoking during the past 30 days, with little change from 1991 to 1999.

Although it would appear that male teens have been more likely than females to report that they smoked every day for the past 30 days **(Fig. 8)**, these differences are not statistically significant. However, reported daily smoking declined over the decade among both males and females.

Males continued to report higher levels of smokeless tobacco use than females during the 1990s **(Fig. 9).** However, male reports of smokeless tobacco use in the past 30 days did decline from 21.7% in 1991 to 14.1% in 1999. In 1999, male teens remained 7 times more likely to than female teens to report using chew or snuff during the past 30 days.

Figure 7: Smoking Experience & Current Smoking*
High School Students

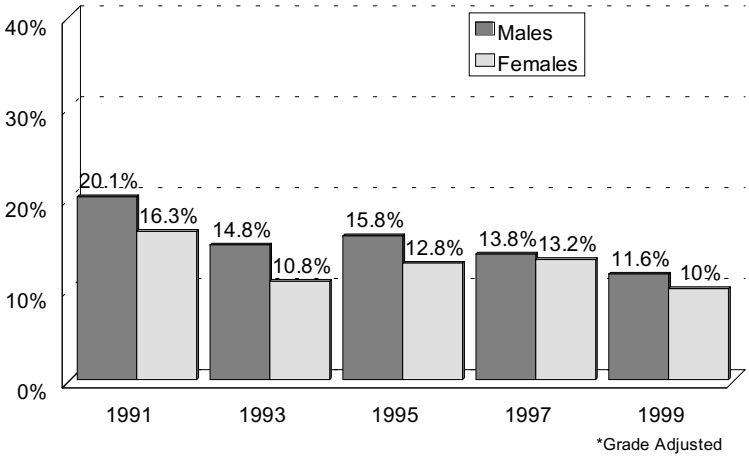


	1991	1993	1995	1997	1999
Females	69.8%	62%	66.7%	67.4%	64%
Males	75.8%	68.8%	65.7%	67.3%	62.3%

	1991	1993	1995	1997	1999
Females	39%	33.2%	38.3%	41.1%	35.2%
Males	40.2%	31.7%	38.8%	41%	33.9%

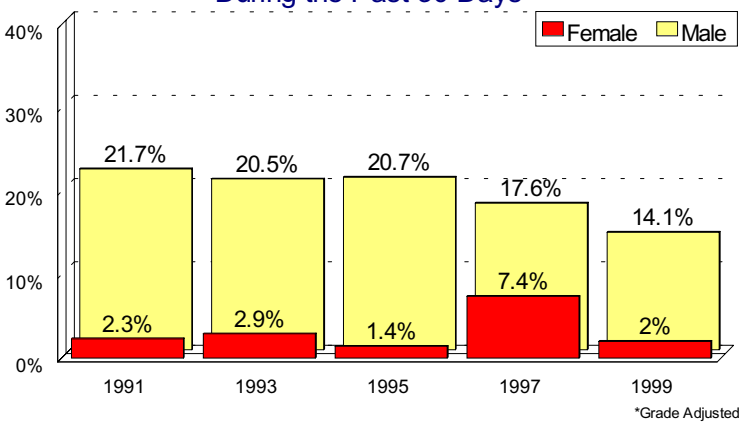
*Grade Adjusted

Figure 8: Daily Smoking, Past 30 Days*
High School Students



*Grade Adjusted

Figure 9: Smokeless Tobacco Use*
High School Students Who Reported Using Chew/Snuff During the Past 30 Days



*Grade Adjusted

Tobacco

Differences by Grade

As with other risky behaviors, teens in older grades reported tobacco use at higher rates than those in younger grades. Declines in tobacco use from 1991 to 1999 were particularly strong among ninth graders. Significant changes occurred in reported means of cigarette purchase.

As with teens overall, within each grade the percentage of teens reporting that they ever smoked a cigarette, even one or two puffs, appeared to decline from 1991 to 1999 **(Fig. 10)**, although only the 9th grade decline was statistically significant. In 1999, reports of ever having smoked varied from 56.9% among 9th graders to 67.6% among 12th graders.

The percentage of teens reporting that they smoked during the past 30 days also appeared to decline from 1991 to 1999 among all grades **(Fig. 11)**. Ninth graders displayed the largest and only statistically significant decline, from 32.9% to 24.3%.

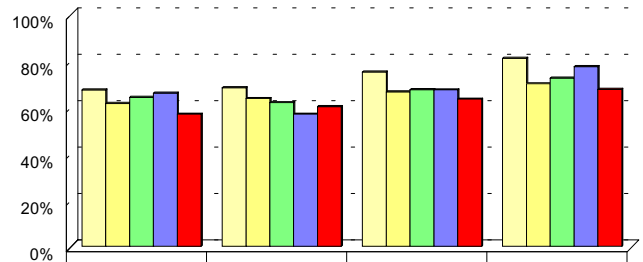
Declines also were apparent from 1991 to 1999 in the percentage of teens reporting that they smoked every day for the past 30 days **(Fig. 12)**, but these declines were statistically significant for 9th and 10th graders only.

The overall decline in reported teen use of smokeless tobacco **(Fig. 1)** was also apparent by grade, with the strongest and only statistically significant declines seen among 9th graders (7.8% to 3.9%) and 11th graders (14.7% to 7.1%).

As discussed earlier, the percentage of current smokers reporting that they bought cigarettes themselves dropped considerably from 1995 to 1999, 42.3% to 18.1% respectively **(Fig. 4)**. Among teens not of legal age to buy cigarettes (under 18 years old), this percentage dropped from 35.7% in 1995 to 9.6% in 1999.

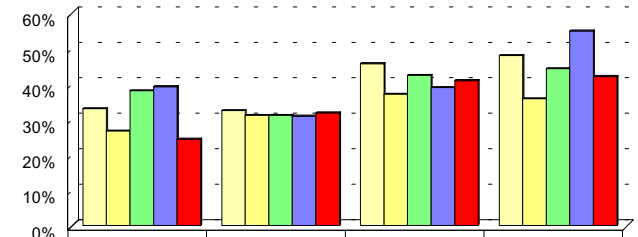
By comparison, national YRBS reports indicated a decline in direct cigarette purchase among those under 18 from 38.7% in 1995 to 23.5% in 1999. Local prevalence rates across the U.S. varied in 1999 nearly fourfold from 11.3% to 45.1%, with an average (median) of 25.8% buying their own cigarettes.

Figure 10: Ever Smoked, by Grade
High School Students



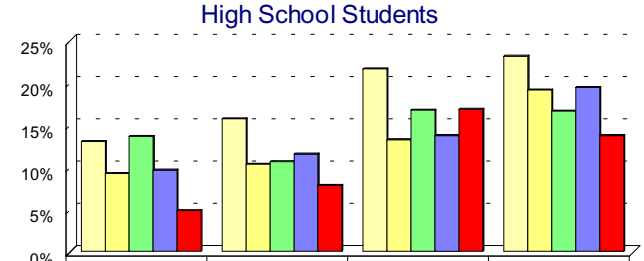
	9th	10th	11th	12th
1991	67.3%	68.3%	75%	81%
1993	61.5%	63.7%	66.5%	70%
1995	64.2%	61.9%	67.5%	72.4%
1997	65.9%	56.9%	67.4%	77.4%
1999	56.9%	60.2%	63.4%	67.6%

Figure 11: Current Smoking (Past 30 Days)
By Grade, High School Students



	9th Grade	10th Grade	11th Grade	12th Grade
1991	32.9%	32.4%	45.6%	47.9%
1993	26.6%	31%	37%	35.7%
1995	38%	31%	42.3%	44.2%
1997	39.1%	30.8%	38.9%	54.8%
1999	24.3%	31.7%	40.8%	42%

Figure 12: Daily Smoking, by Grade
(Smoked Every Day For the Past 30 Days)
High School Students



	9th	10th	11th	12th
1991	13%	15.7%	21.6%	23.1%
1993	9.2%	10.3%	13.2%	19.1%
1995	13.6%	10.6%	16.7%	16.6%
1997	9.6%	11.5%	13.7%	19.4%
1999	4.8%	7.8%	16.8%	13.7%

Differences by Race

From 1991 to 1999, there was little difference between white and non-white teens in reported smoking behaviors. Reported smoking behaviors declined in similar proportion among both groups over the decade, with declines in daily smoking particularly strong among non-white teens.

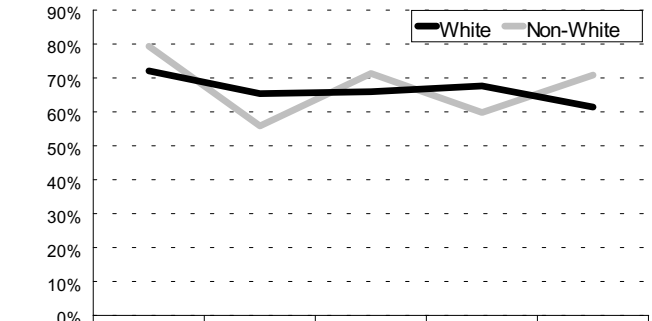
YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

Over the 1990s, white teens became less likely to report that they had ever tried smoking **(Fig. 13)**. For non-white teens, a similar decline was apparent, but there was considerable variation from year to year and the overall decline 1991-1999 was not statistically significant. Reported smoking rates among white and non-white teens have been comparable during the period.

There was little change from 1991 to 1999 in the percentage of teens, both white and non-white, reporting that they smoked within the past 30 days **(Fig. 14)**. White teens were generally more likely than non-white teens to report smoking in the past 30 days.

Reported daily smoking declined noticeably among both white and non-white teens from 1991 to 1999 **(Fig. 15)**. The decline in reported daily smoking was greater among non-white than among white teens. Those reporting daily smoking in the past 30 days declined from 18.0% to 11.0% among white teens and from 21.5% to 9.3% among non-white teens.

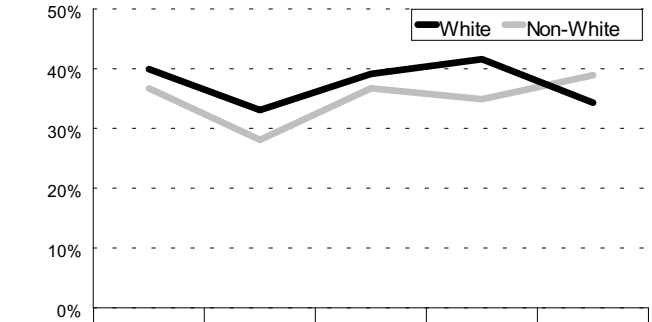
Figure 13: Ever Tried Smoking*
High School Students



	1991	1993	1995	1997	1999
White	72.1%	65.4%	66%	67.7%	61.4%
Non-White	79.4%	55.9%	71.3%	59.8%	70.9%

*Grade Adjusted

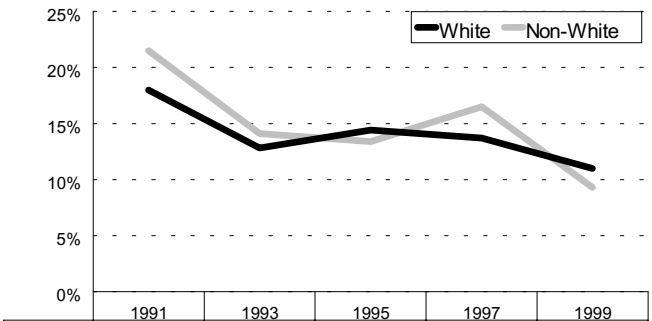
Figure 14: Current Smoking (Past 30 Days)*
High School Students



	1991	1993	1995	1997	1999
White	39.9%	33.1%	39.1%	41.6%	34.3%
Non-White	36.7%	28.1%	36.7%	34.9%	38.9%

*Grade Adjusted

Figure 15: Daily Smoking*
(Smoked Every Day During the Past 30 Days)
High School Students



	1991	1993	1995	1997	1999
White	18%	12.8%	14.4%	13.7%	11%
Non-White	21.5%	14.1%	13.4%	16.5%	9.3%

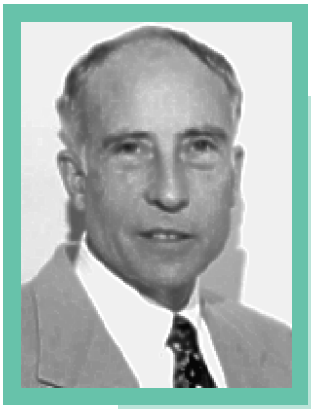
*Grade Adjusted

Tobacco

Health Objectives for the Year 2010: *Reduce disease, disability, and death related to tobacco use and exposure to secondhand smoke by preventing initiation of tobacco use, promoting cessation of tobacco use, reducing exposure to secondhand smoke, and changing social norms and environments that support tobacco use.*

Public Health Discussion

The life expectancy of people who smoke is decreased by an average of 14 years. Smoking during pregnancy is estimated to account for nearly 30% of low birthweight babies. As much as 14% of pre-term deliveries are a result of a mother's smoking, and smoking accounts for nearly 10% of all infant deaths. More than 2,700 Nebraskans lose their lives as the result of tobacco use each year. Additionally, hundreds of millions of dollars are drained from the State's economy each year through medical costs, lost productivity, and property damage. Even more disturbing is the fact that 35,000 Nebraska children currently younger than age 18 will die prematurely from tobacco use.[1]



"One of the best ways to reduce untimely deaths from heart disease is to prevent youth from using tobacco."

Christopher C. Caudill, M.D.
Cardiologist, Nebraska Heart Institute

Scientific knowledge about the health consequences of tobacco use has increased greatly since the release of the first Surgeon General's Report on Tobacco in 1964. It is well documented that smoking cigarettes causes heart disease, cancers of the lung, larynx, esophagus, pharynx, mouth and bladder, and chronic lung disease. Cigarette smoking also contributes to cancer of the pancreas, kidney, and cervix. Consequences of smoking during pregnancy include spontaneous abortions, low birthweight, and sudden infant death syndrome. Use of smokeless tobacco causes a a number of serious oral health problems, including cancer of the mouth, gum periodontitis, and tooth loss. Cigar use causes cancer of the larynx, mouth, esophagus, and lung.[2]

Exposure to secondhand smoke (environmental tobacco smoke, or ETS) has serious health consequences. Researchers have identified more than 4,000 chemical compounds in tobacco smoke, of which at least 43 cause cancer in humans and animals. 1996 study found that among non-tobacco users, 87.9% showed evidence of exposure to ETS, many of whom were not aware of their exposure. ETS is also linked to heart disease among adults. Not only do adults die from these cancers, but children suffer from lower respiratory tract infections as a result of exposure to ETS.[2]

Scientific evidence indicates that tobacco use and addiction usually begins in adolescence and that tobacco use may increase the probability that an adolescent will use other drugs. Since 90% of people who smoke indicate they started smoking before age 18, preventing tobacco use among Lincoln and Lancaster County youth must be a major focus of tobacco control programs.[1]

The five key stages of initiation and establishment of tobacco among young people are:

1. forming attitudes and beliefs about tobacco,
2. first trying tobacco,
3. continuing experimentation with tobacco,
4. regularly using tobacco,
5. becoming addicted to tobacco.

Youth are put at increased risk of initiating tobacco use by sociodemographic, environmental and personal factors. Sociodemographic risk factors include coming from a family with low socioeconomic status. Environmental risk factors include accessibility and availability of tobacco products, cigarette advertising and promotion, price of tobacco

products, perceptions that tobacco use is normal, peer's and siblings use and approval of tobacco, and lack of parental involvement. Personal risk factors include a lower self-image, the belief that tobacco use provides a benefit, and lack of ability to refuse offers to use tobacco.

The principal reason for continuation of tobacco use is the addictive nature of tobacco, and that addiction occurs in most smokers during adolescence. A study of high school seniors showed that 44% of daily smokers believed that in five years they would not be smoking, but a follow-up study showed that five to six years later 73% of those persons remained daily smokers. In 1995, it was estimated that over 68% of current smokers wanted to quit, but only 2.5% actually stop smoking permanently each year.[2]

The focus of efforts to reduce tobacco use in the United States has shifted from smoking cessation for individuals to population-based interventions that emphasize prevention of initiation and reduction of exposure to ETS. This change of emphasis from individual behavior to population-based strategies has come about because tobacco use appears to be susceptible to changes in the social environment.

Evidence from California and Massachusetts has shown that comprehensive programs can be effective in reducing tobacco consumption. Both states increased their cigarette excise taxes and designated a portion of the revenues for comprehensive tobacco-control programs. Data from these states indicates that:

1. Increasing taxes on cigarettes is one of the most cost-effective strategies to reduce tobacco consumption among adults and to preventing initiation of smoking among youth.
2. The ability to sustain this reduction in per capita consumption is greater when the tax increase is combined with an aggressive antismoking campaign.

There are six key components of tobacco-use prevention and control interventions:

1. prevention and restriction of minors' access to tobacco.
2. treatment of nicotine addiction,
3. reduction of exposure to secondhand smoke (ETS),
4. counter advertising and promotion,
5. economic incentives,
6. product regulation.

A Comprehensive Tobacco Control Program approach includes most of these key components.[3]

Parental Roles and Responsibilities:

Parents have tremendous leadership opportunities in shaping youth attitudes toward tobacco with open communications and shared concern for healthy lifestyles.

Role modeling positive healthy lifestyle behaviors help youth build a value system that can reduce desire to experiment with tobacco. Concerned parents who know their child is using tobacco can help their child quit or overcome their addiction to nicotine. Parents who are sensitive to the effects of environmental tobacco smoke will help youth limit exposure. Parents can be leaders in community issues focused on advertising, access to tobacco, and product regulation.

Community Roles and Responsibilities:

Lincoln and Lancaster County residents can greatly assist in reducing the tobacco health risk including:

1. Support strict enforcement of laws governing the sale of tobacco to minors.
2. Support penalties to both minors and merchants who break these laws.
3. Support efforts that regulate tobacco advertising, especially that which is appealing to minors.
4. Encourage funding of health education campaigns for both youth and adults.
5. Discourage Environmental tobacco smoke wherever possible, especially areas frequented by children and youth.
6. Support increasing excise taxes on tobacco products.
7. Be a role model to youth, including the mentorship opportunities to talk to teens with factual information.

Policy Makers' Roles and Responsibilities:

Public Health Infrastructure: Tobacco Free Coalitions have been established in 16 communities in Nebraska, including the Tobacco Free Lincoln Coalition.

Health agencies are joining forces to introduce and pass legislation to protect the public from environmental tobacco use and increase the tax on tobacco. Communities are creating comprehensive programs to prevent children from starting to use tobacco. The Center for Disease Control's August 1999 guide, "Best Practices for Comprehensive Tobacco Control Programs," and the Smokeless Nebraska Coalition's November 1999 "Combating Tobacco Use in Nebraska" provide excellent guidance in developing such comprehensive plans.

The Lincoln-Lancaster County Board of Health has passed a Tobacco Control Policy. The Lincoln-Lancaster County Health Department is committed to being an aggressive leader in implementing comprehensive tobacco prevention plans to address the 4 "A"s of tobacco control - Access, Appeal, Affordability and Clean Air. Lincoln Lancaster County Health Department will continue to work closely with Nebraska Health and Human Services, Health Education, Inc., the Lancaster County Medical Society, the Nebraska Dental Association, the American Heart Association, the American Lung Association, the American Cancer Society and the Nebraska Smokeless Coalition to decrease the rate at which children start to use tobacco and to protect the public from ETS. Local schools, churches, and health agencies must continue to maintain the tobacco agenda to assure sufficient resources to impact the tobacco health risk.

References:

1. Lincoln-Lancaster County Health Department. "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska". January, 2000

2. U.S. Department of Health and Human Services. "Healthy People 2010 Objectives: Draft for Public Comment." September, 1998

3. U.S. Department of Health and Human Services Center for Disease Control and Prevention, "Best Practices for Comprehensive Tobacco Control Programs". August, 1999

Illegal Drugs

The Youth Risk Behavior Survey includes questions on use of marijuana, cocaine, inhalants, heroin, methamphetamine, steroids, and injected drugs, as well as marijuana use and drug acquisition on school property.

Lifetime Drug Use

Reported marijuana use among Lancaster County teens increased then declined during the 1990s, while use of inhalants and injected drugs declined and experience with other illegal drugs changed little. New 1999 questions provided baseline data on reported methamphetamine and heroin use (Figure 1).

1999 YRBS data indicated that the most common illicit drug ever used by teens was marijuana (36.3%), followed by inhalants (10.9%) and methamphetamine (7.4%).

New to the 1999 YRBS were questions asking about lifetime heroin and methamphetamine use. In previous surveys, these drugs were grouped in a single question with several other illegal drugs. The new baseline data for 1999 indicates that more teens report having used methamphetamine than cocaine, heroin, or steroids.

From 1991 to 1997, the percentage of teens reporting ever having used marijuana increased from 34.2% to 41.0%, then it dropped to 36.3% in 1999, a percentage not significantly different from the 1991 percentage (34.2%).

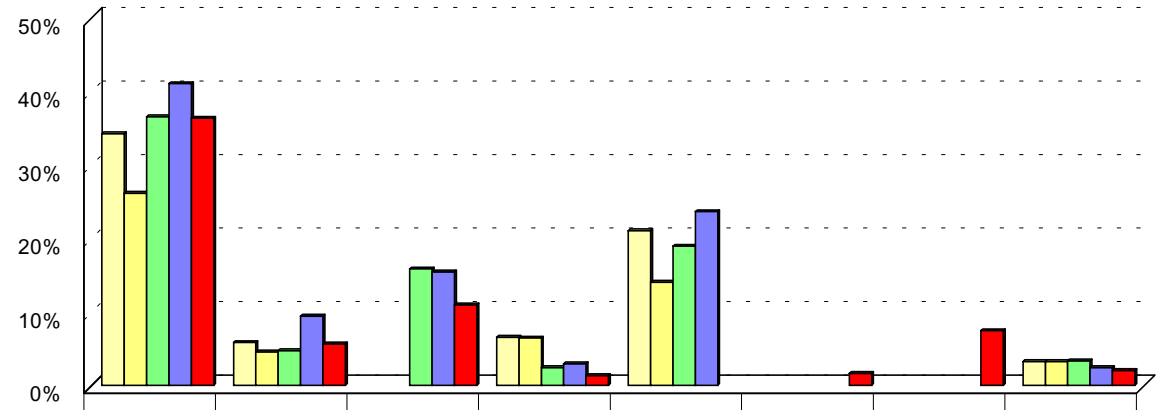
The percentage of teens reporting that they ever used inhalants or used a needle to inject illegal drugs declined during the 1990s. However, the percentage of teens who reported ever using cocaine, steroids without a doctor's prescription, or other illegal drugs‡ changed little.

Trends in lifetime drug use generally held true for teens in different grades, males and females, and white and non-white teens. See the following pages for detail.

Lancaster County YRBS trends (1991-1999) were not always consistent with those in Nebraska (1993-1997)[1] and the U.S. (1991-1999)[2]. Stable or decreasing Lancaster County trends in most types of drug use contrasted with increasing trends in Nebraska and/or the U.S. One exception was inhalant use, for which both local and national trends were in decline from 1995 to 1999.

1 Tables published by Buffalo Beach Company, Lincoln, NE
2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Lifetime Drug Use*
High School Students



	Ever Used Marijuana	Ever Used Cocaine†	Ever Used Inhalants ††	Ever Injected An Illegal Drug	Ever Used Other Illegal Drugs ‡	Ever Used Heroin	Ever Used Metham-phetamine	Ever Used Steroids ‡‡
1991	34.2%	5.8%		6.5%	21%			3.2%
1993	26.1%	4.5%		6.4%	14%			3.2%
1995	36.5%	4.7%	15.8%	2.4%	18.9%			3.3%
1997	41%	9.4%	15.4%	2.9%	23.6%			2.4%
1999	36.3%	5.6%	10.9%	1.3%		1.6%	7.4%	2%

† "any form of cocaine including powder, crack or freebase"
†† "sniffed glue, breathed the contents of aerosol spray cans, or inhaled paints or sprays"
‡ "LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin"
‡‡ "steroid pills or shots without a doctor's prescription"
* Grade Adjusted

YRBS data, 1991-1999, indicate unchanged reports of current (within the past 30 days) marijuana and cocaine use. There are signs that teens may be smoking marijuana at earlier ages.

Following the pattern of lifetime history of marijuana use **(Fig. 1)**, current use, or the percentage of teens reporting that they used marijuana during the past 30 days, increased from 1991 (17.3%) to 1997 (24.6%), then declined in 1999 to a level (18.3%) comparable to that at the beginning of the decade **(Fig. 2)**. Thus, there was no cumulative change over the 1990s in current marijuana use.

For the first time in 1999, the YRBS asked about inhalant use during the past 30 days. Three percent of teens reported using inhalants during the past 30 days, as compares to 1.7% for cocaine and 18.3% for marijuana use.

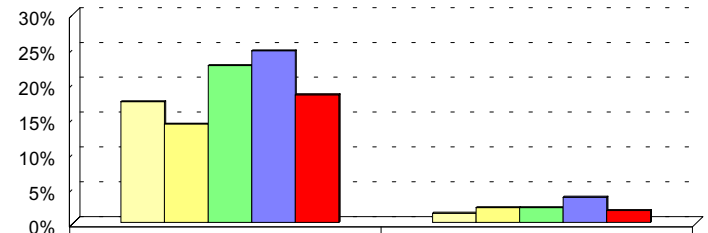
Among teens who reported ever using marijuana, the percentage who first used marijuana at 11 to 14 years of age appears to have increased, but these increases were not statistically significant **(Fig. 3).** In 1999, nearly half (45.8%) of reported marijuana smokers reported that they first used marijuana at 13-14 years of age.

Two YRBS questions address drugs on school property **(Fig. 4)**. Both of these indicators declined from 1995 to 1999.

Teens reporting that they were offered, sold, or given drugs on school property during the past 12 months increased from 1993 (16.9%) to 1995 (28.5%). Declines were apparent after 1995, but the indicator remained significantly higher in 1999 (24.6%) than it had been in 1993 (16.3%).

The percentage of teens reporting that they used marijuana on school property during the past 30 days changed little overall from 1993 (4.3%) to 1999 (4.5%).

Figure 2: Current Drug Use (Past 30 Days)*
High School Students

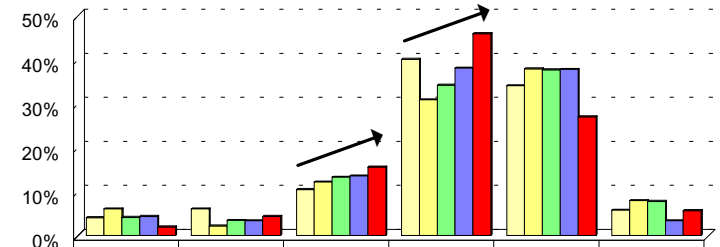


	Used Marijuana Past 30 Days	Used Cocaine** Past 30 Days
1991	17.3%	1.3%
1993	14.1%	2.1%
1995	22.5%	2.1%
1997	24.6%	3.6%
1999	18.3%	1.7%

** "Any form of cocaine including powder, crack or freebase"

*Grade Adjusted

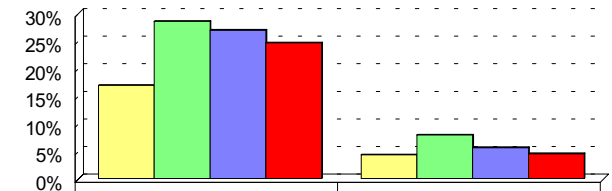
Figure 3: Marijuana - Age of First Use*
High School Students Who Reported Smoking Marijuana During Their Lifetime



	8 years or younger	9-10 years old	11-12 years old	13-14 years old	15-16 years old	17+ years old
1991	4%	6%	10.4%	40%	34%	5.7%
1993	6%	2.1%	12.1%	30.8%	37.8%	7.9%
1995	4.1%	3.4%	13.2%	34.1%	37.6%	7.7%
1997	4.3%	3.3%	13.5%	38%	37.7%	3.3%
1999	1.9%	4.3%	15.5%	45.8%	26.9%	5.6%

*Grade Adjusted

Figure 4: Drug Use On School Property*
High School Students



	Offered, Sold, Given Drugs On School Property Past 12 Months	Used Marijuana On School Property Past 30 Days
1993	16.9%	4.3%
1995	28.5%	7.9%
1997	26.9%	5.6%
1999	24.6%	4.5%

*Grade Adjusted

Illegal Drugs

Differences by Gender

During the 1990s, a gender gap (higher male rate) for marijuana use closed, but reports of drug use on school property and inhalant use remained more prevalent among males (Figs. 5 - 7).

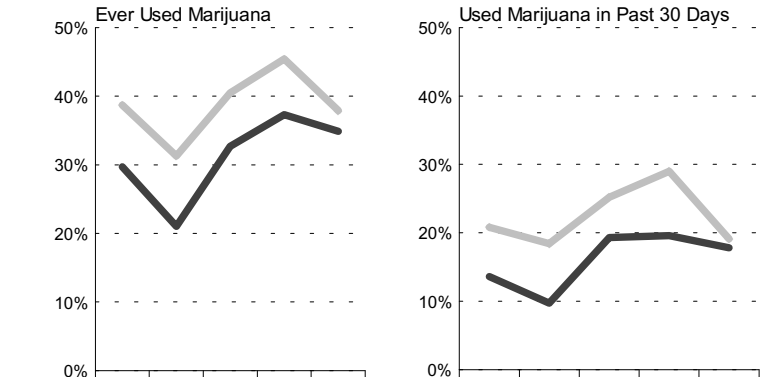
In 1999, the gap between males and females in reported marijuana use is the smallest it has been since the survey began in 1991 **(Fig. 5)**. In 1991, males were 1.5 times more likely to report using marijuana in the past 30 days. By 1999 this ratio had disappeared.

The gap between male and female teens in reported lifetime marijuana use showed similar declines. For both lifetime and past-30-days use, reported female marijuana use seems to have increased (not a statistically significant increase), while reported male use remained steady.

Over the 1990s there has consistently been a higher apparent cocaine usage rate reported by males **(Fig. 6)**. However, the gap has never been statistically significant and appears to have narrowed during the period. Increases among females during the period were not statistically significant.

In 1999, the only statistically significant gender gaps for illegal drug use were a higher rate among males for reported drug use on school property, marijuana use on school property, and inhalant use **(Fig. 7)**.

Figure 5: Marijuana Use*
High School Students

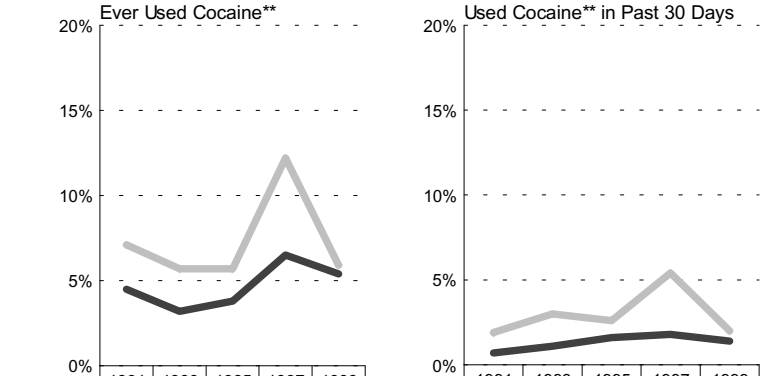


	1991	1993	1995	1997	1999
Females	29.7%	21%	32.7%	37.3%	34.9%
Males	38.7%	31.3%	40.5%	45.4%	37.9%

	1991	1993	1995	1997	1999
Females	13.6%	9.7%	19.3%	19.6%	17.8%
Males	20.8%	18.4%	25.2%	29%	19.1%

*Grade Adjusted

Figure 6: Cocaine Use*
High School Students



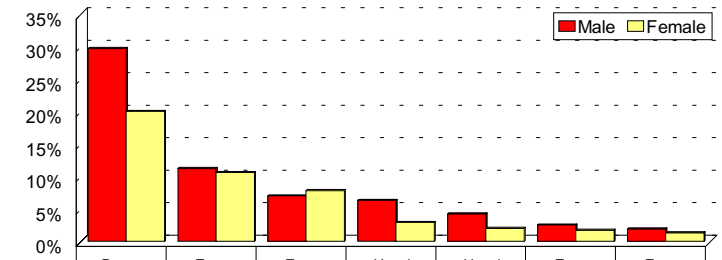
	1991	1993	1995	1997	1999
Females	4.5%	3.2%	3.8%	6.5%	5.4%
Males	7.1%	5.7%	5.7%	12.2%	5.9%

	1991	1993	1995	1997	1999
Females	0.7%	1.1%	1.6%	1.8%	1.4%
Males	1.9%	3%	2.6%	5.4%	2%

** "Any form of cocaine including powder, crack, or freebase"

*Grade Adjusted

Figure 7: Marijuana and Other Drugs*
1999 High School Students



	Drugs On School Prop.†	Ever Used Inhalants††	Ever Used Meth.	Used Marijuana School Prop.‡	Used Inhalants‡‡ Past 30 Days	Ever Used Steroids††	Ever Used Heroin
Male	29.7%	11.2%	7%	6.3%	4.2%	2.5%	1.9%
Female	20%	10.6%	7.8%	2.9%	2%	1.7%	1.3%

† "offered, sold, or given drugs on school property in past 12 months"
†† "sniffed glue, breathed the contents of aerosol spray cans, or inhaled paints or sprays"
‡ "used marijuana on school property in the past 30 days"
‡‡ "steroid pills or shots without a doctor's prescription"
*Grade Adjusted

Differences by Grade

As with many other risk behaviors, teens in older grades have generally been more likely than those in younger grades to report illegal drug use. There were decreases during the 1990s in reported inhalant use by 9th and 12th graders (Figs. 8 - 10).

In 1999, reported lifetime use of marijuana was higher among teens in older grades, ranging from 27.1% among 9th graders to 47.9% among 12th graders. All grades appeared more likely in 1999 to report that they had ever used marijuana than in 1991 **(Fig. 8)**, but this was not a statistically significant increase.

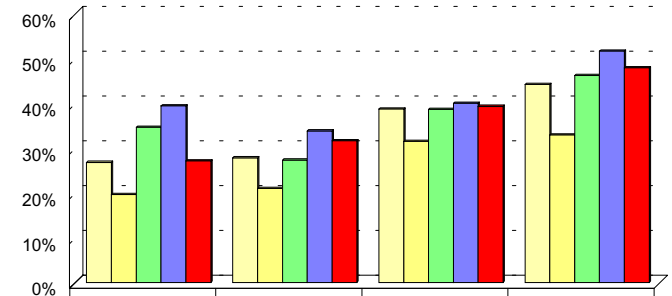
The percentage of teens who reported using marijuana during the past 30 days also increased in each grade from 1991 to 1999, even though these percentages were lower in 1999 than in 1997 **(Fig 9)**.

For teens as a whole, the percentage reporting that they had ever used inhalants decreased from 1995 to 1999 **(Fig. 1)**. This decline was most pronounced among 9th and 12th graders. Ninth graders have generally been most likely to report inhalant use **(Fig. 10).**

In 1999, the percentage of teens reporting that they had ever used methamphetamine was, by grade: 7.2% among 9th graders, 4.4% among 10th graders, 9.3% among 11th graders, and 8.9% among 12th graders.

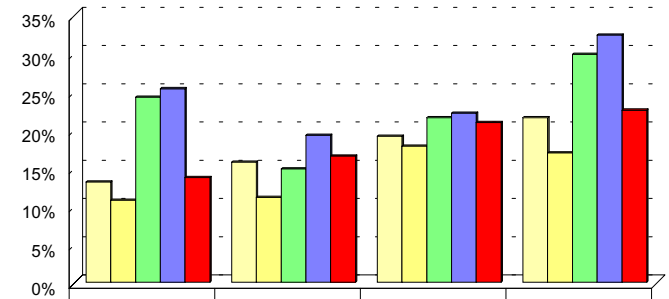
Reported prevalence and sample sizes for other drug questions were not large enough to show any clear trends by grade.

Figure 8: Ever Used Marijuana by Grade
High School Students



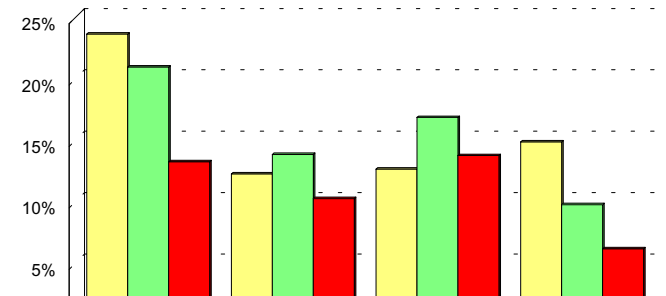
	9th	10th	11th	12th
1991	26.8%	27.8%	38.7%	44.2%
1993	19.6%	21%	31.5%	32.9%
1995	34.6%	27.3%	38.6%	46.2%
1997	39.4%	33.8%	40%	51.6%
1999	27.1%	31.6%	39.3%	47.9%

Figure 9: Marijuana Use in Past 30 Days by Grade
High School Students



	9th	10th	11th	12th
1991	13.1%	15.7%	19.1%	21.5%
1993	10.7%	11.1%	17.8%	16.9%
1995	24.2%	14.8%	21.5%	29.8%
1997	25.3%	19.2%	22.1%	32.3%
1999	13.7%	16.5%	20.9%	22.5%

Figure 10: Ever Used Inhalants by Grade
High School Students



	9th	10th	11th	12th
1995	23.6%	12.2%	12.6%	14.8%
1997	20.9%	13.8%	16.8%	9.7%
1999	13.2%	10.2%	13.7%	6.1%

Illegal Drugs

Differences by Race

During the 1990s, non-white teens were more likely than white teens to report marijuana use on school property, steroid use, and inhalant use. Other white/non-white differences in drug use were not statistically significant. The only statistically significant increase in reported drug use was an increase in reported current (past 30 days) cocaine use among non-white teens (Figs. 11 - 13).

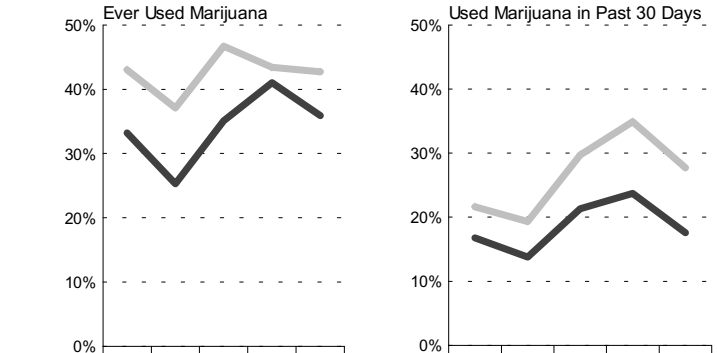
YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

During the 1990s, non-white teens have consistently reported higher rates of marijuana and cocaine use than white teens, however these differences have never been statistically significant **(Figs. 11 - 12)**. There was an increase in reported cocaine use over the past 30 days by non-white teens. Other increases in reported drug use were not statistically significant.

In 1999, non-white teens were more likely than white teens to report use of steroids, inhalants, as well as use of marijuana on school property. Other white/non-white differences were not statistically significant **(Fig. 13)**.

The largest gap between non-white and white teens could be seen in reported steroid use. In 1999, non-white teens were 6.5 times more likely than white teens to report that they had ever used steroids (pills or shots) without a doctor's prescription **(Fig. 13)**.

Figure 11: Marijuana Use*
High School Students

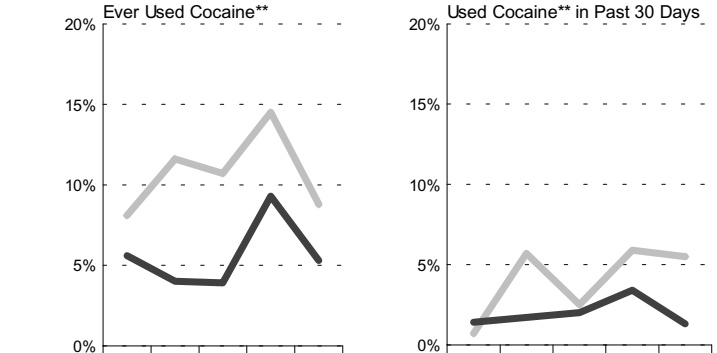


Ever Used Marijuana	1991	1993	1995	1997	1999
White	33.2%	25.3%	35.1%	41%	35.9%
Non-White	43%	37.1%	46.7%	43.4%	42.7%

Used Marijuana in Past 30 Days	1991	1993	1995	1997	1999
White	16.8%	13.8%	21.3%	23.7%	17.6%
Non-White	21.6%	19.3%	29.7%	34.9%	27.7%

*Grade Adjusted

Figure 12: Cocaine Use*
High School Students

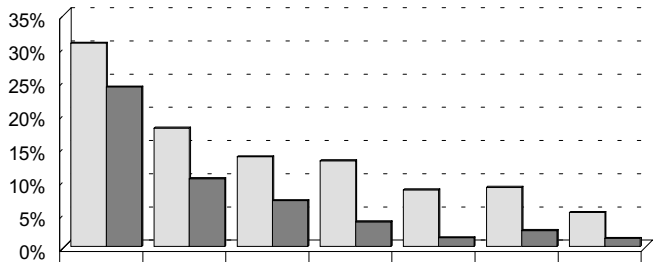


Ever Used Cocaine**	1991	1993	1995	1997	1999
White	5.6%	4%	3.9%	9.3%	5.3%
Non-White	8.1%	11.6%	10.7%	14.5%	8.8%

Used Cocaine** in Past 30 Days	1991	1993	1995	1997	1999
White	1.4%	1.7%	2%	3.4%	1.3%
Non-White	0.7%	5.7%	2.5%	5.9%	5.5%

** "Any form of cocaine including powder, crack, or freebase"
*Grade Adjusted

Figure 13: Illegal Drug Use*
1999 High School Students



	Drugs On School Property †	Ever Used Inhalants ††	Ever Used Meth.	Used Marijuana School Prop. ‡	Ever Used Steroids ‡‡	Used Inhalants †† Past 30 Days	Ever Used Heroin
Non-White	30.6%	17.8%	13.5%	12.9%	8.5%	8.9%	5.1%
White	24%	10.2%	6.9%	3.7%	1.3%	2.4%	1.2%

H "offered, sold, or given drugs on school property in past 12 months"
HH "sniffed glue, breathed the contents of aerosol spray cans, or inhaled paints or sprays"
I "used marijuana on school property in the past 30 days"
II "steroid pills or shots without a doctor's prescription"
*Grade Adjusted

Illegal Drugs

Health Objectives for the Year 2010: *Reduce death, injury, and socio-economic consequences of alcohol and other drug abuse. Educate the public on the dangers of alcohol and other drug abuse.*

Public Health Discussion

Marijuana use among adolescents is a concern in Lancaster County because of an increase over the past ten years reporting use in the month prior to the survey.

Marijuana is the illegal drug most often used in America. While marijuana use increased 38% nationally among high school youth in the 1990's, the number of those who believe that marijuana use is harmful has dropped by 22% in the past three years. These changes in perception and knowledge may be due to a decrease in antidrug messages in the media, an increase in prodrug messages through the pop culture,and a lack of awareness among parents about this resurgence in drug use.[1]

"Effective deterrents to illegal drug use among our kids include community strategies that value youth. 'Asset building' and involving youth, as well as families, schools, faith communities, businesses, policy makers and human service providers, are necessary for quality prevention programs."

Deb Sprague, Executive Director
Lincoln Council on Alcoholism and Drugs

All forms of marijuana (cannabis) are mind-altering drugs, they all contain THC (delta-9-tetrahydrocannabinol), the main active chemical in marijuana. There are about 400 chemicals in a cannabis plant, but THC is the one that affects the brain the most. THC disrupts the nerve cells in the part of the brain where memories are formed. Over time, the drug takes its toll on mental functions, increasing the chance of users developing schizophrenia, chronic anxiety, personality disturbances and depression. Lack of motivation, fatigue, loss of desire to work, and lack of concern over personal appearance often result.

The effects of marijuana on each person depends on how much THC it contains, the way the drug is taken, experience and expectations of the user, the setting where the drug is taken and whether drinking or other drug use is also going on. Marijuana can be harmful through both immediate effects and health over time. Marijuana hinders the user's short-term memory, and causes difficulty in handling complex tasks. The drug affects perceptions and reaction time, thus users could be involved in auto crashes where skills in judging distance and reactions to sights and sounds are required. Drug users also may become involved in risky sex. Students under the influence of marijuana may find it hard to study and learn. Long-term effects of marijuana can lead to cancers similar to those who smoke tobacco. Marijuana smoke contains some of the same cancer-causing compounds as tobacco. Heavy marijuana use can affect hormones in both male and females. In men, it causes effects from delays in puberty to adverse effects on sperm production. Among women, marijuana can disrupt the normal monthly menstrual cycle and inhibit the discharge of eggs from the ovaries. The immune system, which protects the body from many agents that cause infections, can be impaired with marijuana use. Marijuana smokers may have symptoms of daily cough, chronic bronchitis and more frequent chest colds. Babies born to marijuana users are reported to be shorter, weigh less, and have smaller head sizes that those born to mothers not using the drug. Smaller babies are more likely to develop health problems.

Parental Roles and Responsibilities:

There is no magic way of preventing teenage drug use. Parents can:

1. Establish and maintain good communications. Be influential by talking to your children about the dangers in using marijuana and other drugs.
2. Make clear rules and enforce them with consistency and consequences. Remain actively engaged in children's lives. Parents can be active in schoolwork, recreation and social activities with their children's friends.
3. Appreciate a child's individuality. Parents need to value their children, devoting daily effort to building their child's self-esteem and sense of purpose to life.
4. Be a positive role model. Parents who role model their values through open communication with their children help their youth make positive decisions not to use marijuana and other illegal drugs.
5. Help your child deal with peer pressures and media messages that may trivialize drug use.
6. Monitor your child's activities.

Community Roles and Responsibilities:

It is still difficult to find positive treatment programs specifically for marijuana and illegal drug users.

More treatment centers and trained drug treatment professionals are needed. More research is needed to identify characteristics of users that are predictors of success in treatment and which approaches to treatment can be most helpful.

Policy Makers' Role and Responsibilities:

Drug prevention programs through community and schools require funding streams that are continuous over time.

Comprehensive school health curriculums can reinforce healthy lifestyles and reduce risky behaviors.

References:

1. Lincoln-Lancaster County Health Department, "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000, D20

Violence

The Youth Risk Behavior Survey includes questions on physical fighting, weapons possession, injury as a result of physical fighting, weapon threats, school absence due to safety concerns, abuse, and forced sexual intercourse.

Overall Trends

Reported rates of violence among Lancaster County teens declined from 1991 to 1999. There was a steady decline in general indicators of violence and weapons possession over the five biannual survey years (Figure 1).

In 1999, 29.7% of teens reported having been involved in a physical fight in the past 12 months. This represents a substantial decline over the period since 1991, when 39.9% of teens reported having been involved in a physical fight.

The percentage of teens who reported carrying a weapon or carrying a gun in the past 30 days also declined from 1991 to 1999. In 1999, 14.6% reported having carried a weapon within the past 30 days and 5.1% reported carrying a gun within the past 30 days.

The percentage of teens reporting injuries requiring medical treatment due to a physical fight remained relatively small during the period, with 3.2% reporting such injuries in 1999.

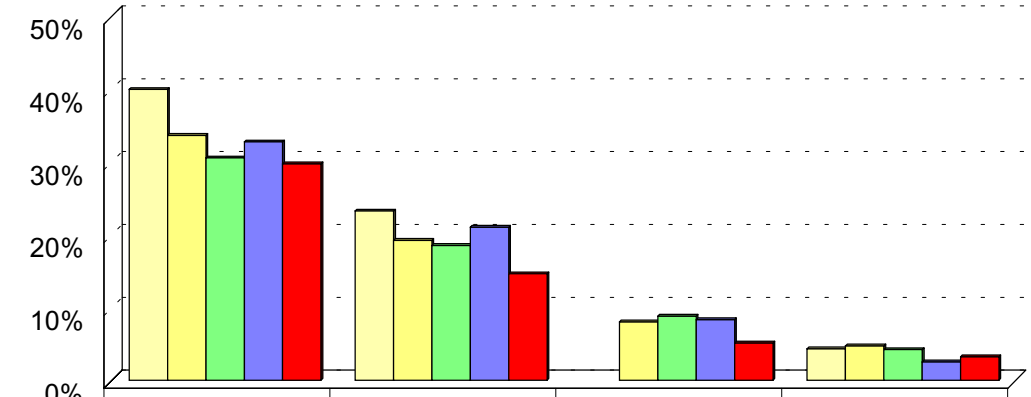
The decline in reported violence, 1991-1999, occurred not only in the entire YRBS sample but also among respondents of different grades, among males as well as females, and white and non-white teens. See the following pages for detail.

Declining rates of weapon possession, gun possession, and physical fighting in Lancaster County were consistent with declines in Nebraska (1993-1997)[1] and the U.S. (1991-1999)[2].

1 Tables published by Buffalo Beach Company, Lincoln, NE

2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Violence*
High School Students



	Physical Fight Past 12 Months	Carried Weapon Past 30 Days	Carried Gun Past 30 Days	Treated for Injury due to Physical Fight Past 12 M
1991	39.9%	23.2%		4.3%
1993	33.6%	19.2%	8%	4.7%
1995	30.5%	18.5%	8.8%	4.2%
1997	32.7%	21%	8.3%	2.5%
1999	29.7%	14.6%	5.1%	3.2%

*Grade Adjusted

Violence On School Property, Girlfriend/Boyfriend Physical Abuse, Rape

In addition to declines in violence-related measures overall, YRBS results indicated reductions in reported violence *on school property* (Figure 2). These questions were first asked in the 1993 YRBS.

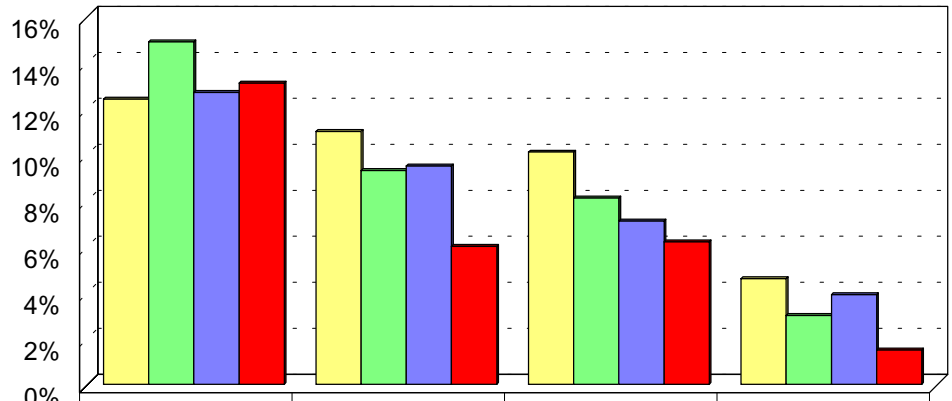
The percentage of teens reporting involvement in a physical fight on school property within the past 12 months did not decrease from 1993 to 1999. In 1999, 13.1% of teens reported having had a fight on school property within the past 12 months.

However, other indicators of violence at school declined from 1993 to 1999. The percentage of teens who reported carrying a weapon on school property in the past 30 days dropped from 11.0% to 6.0%.

There was also a steady downward trend in the percentage of teens reporting that they were threatened or injured with a weapon on school property within the past 12 months. This percentage declined from 10.1% to 6.2%.

Finally, the percentage of teens reporting absence as a result of feeling unsafe going to, being at, or leaving school, also declined overall from 1993 (4.6%) to 1999 (1.5%).

Figure 2: Violence On School Property*
High School Students



	Physical Fight Past 12 Months On School Prop.	Carried Weapon Past 30 Days On School Prop.	Threatened or Injured With Weapon Past 12 Months	Absent due to Unsafe Feelings Past 30 Days
1993	12.4%	11%	10.1%	4.6%
1995	14.9%	9.3%	8.1%	3%
1997	12.7%	9.5%	7.1%	3.9%
1999	13.1%	6%	6.2%	1.5%

*Grade Adjusted.

New to the 1999 survey were questions which dealt with abuse by one's boyfriend or girlfriend and forced sexual intercourse.

Responses indicated that:

- 6.8% of teens in Lancaster County reported that their boyfriend or girlfriend had hit, slapped, or physically hurt them on purpose during the past 12 months.
- 5.6% of teens reported that they had ever been forced to have sexual intercourse when he or she did not want to.

Differences by Gender

In 1999, as in previous years, male teens reported more violent behavior than did female teens. However, several reported violence and weapons behaviors declined among both male and female teens during the period. Females were more likely than males to report that they had ever been forced into sexual intercourse against their will.

Reported involvement in a physical fight during the past 12 months **(Fig. 3)** and having required medical attention for an injury incurred during a physical fight **(Fig. 4)** declined for both males and females from 1991 to 1999.

However, males were consistently more likely than females to report fighting or fight-related injuries. In 1999, compared with female teens, male teens were 2.2 times more likely to report that they were involved in a physical fight during the past 12 months and 2.5 times more likely than female teens to report injuries requiring medical attention during the past 12 months.

In 1999, 27.3% of males reported carrying a weapon in the past 30 days while 4.0% of females reported the same activity **(Fig. 5)**. 1999 data also indicated that 10.2% of males reported carrying a gun in the past 30 days while 0.4% of females reported this behavior. Reported carrying of weapons declined for both males and females during the 1990s, while reported gun carriage declined among males.

In 1999, female teens were 1.7 times more likely (6.9%) than males (4.1%) to report having been forced to engage in sexual intercourse against their will. However, females and males were similarly likely to report having been intentionally hit, slapped, or physically hurt by their significant other (7.0% and 6.6%, respectively).

Figure 3: Physical Fight Within Past 12 Months*
High School Students

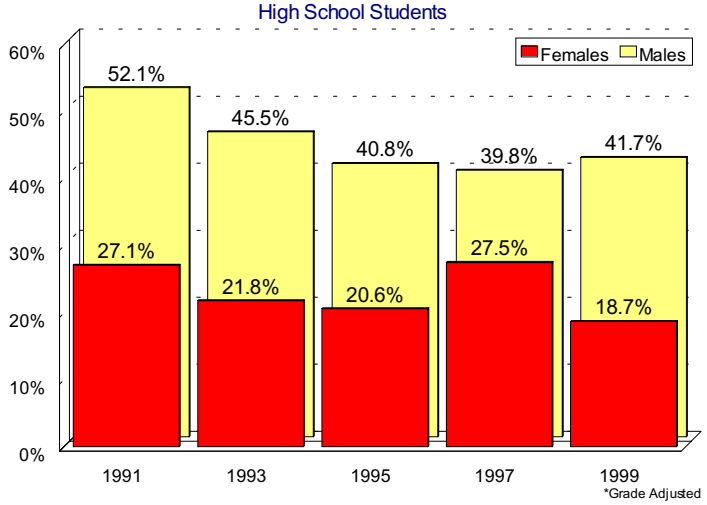


Figure 4: Treated for Injury
Due to Physical Fight in the Past 12 Months*
High School Students

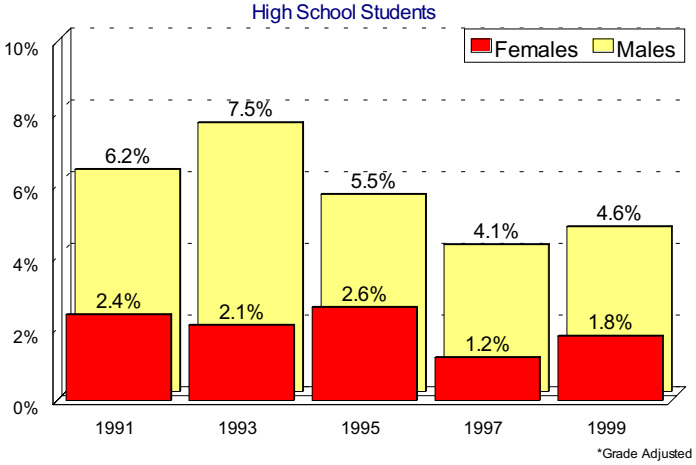
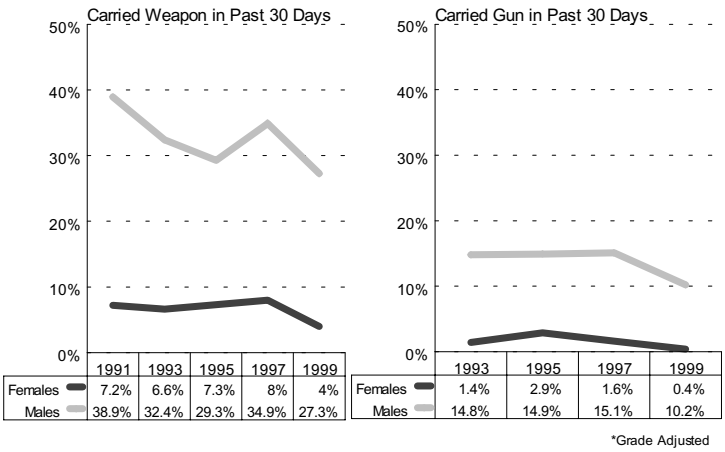


Figure 5: Weapon and Gun Possession*
High School Students



Differences by Grade

During the 1990s, decreases in reported teen physical fighting and weapons possession occurred in selected grades. Teens in younger grades were more likely to report violent behaviors than teens in older grades.

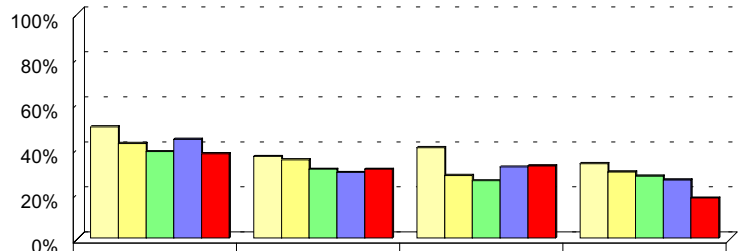
Reported physical fighting appeared to decline in each grade from 1991 to 1999, although only declines among 9th and 12th graders were statistically significant **(Fig. 6)**.

Ninth grade teens reported higher rates of physical fighting than all other grades, with 37.5% reporting that they fought within the past 12 months (1999). By comparison, in 1999, 30.6% of 10th graders, 32.1% of 11th graders, and 17.8% of 12th graders reported being in a physical fight during the past 12 months.

With respect to reported weapon possession, statistically significant improvements (reductions) from 1991 to 1999 occurred among 9th and 10th grade teens **(Fig. 7)**. Nevertheless, in 1999, weapons possession was reported by over 1 in 10 teens, regardless of grade.

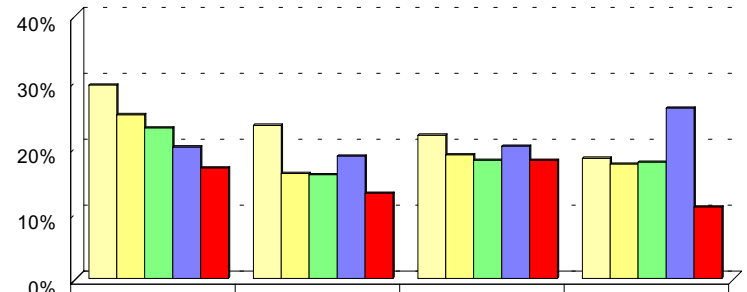
In 1999, the percentage of teens who reported gun possession during the past 30 days showed little variance among grades **(Fig. 8)**. This indicator decreased among 9th graders, but for other grades there was no statistically significant change overall from 1993 to 1999. Low prevalence of this and other violence indictors resulted in response sizes too small to identify clear trends by grade.

Figure 6: Physical Fight Within Past 12 Months By Grade
High School Students



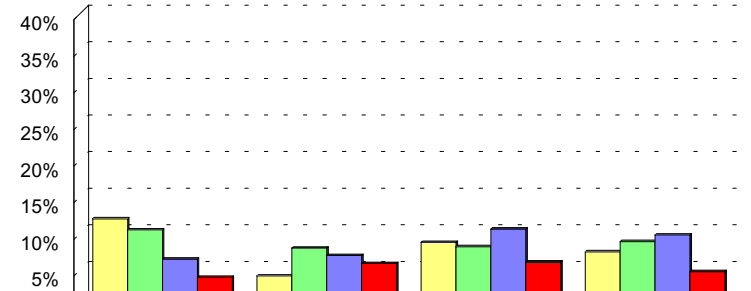
	9th	10th	11th	12th
1991	49.4%	36.3%	40.2%	33.1%
1993	42%	34.8%	27.8%	29.4%
1995	38.4%	30.6%	25.5%	27.5%
1997	43.9%	29.2%	31.6%	25.8%
1999	37.5%	30.6%	32.1%	17.8%

Figure 7: Weapon Possession by Grade
Carried Gun, Knife, or Club Within Past 30 Days



	9th	10th	11th	12th
1991	29.3%	23.2%	21.7%	18.2%
1993	24.8%	15.9%	18.7%	17.3%
1995	22.8%	15.7%	17.9%	17.6%
1997	19.9%	18.5%	20%	25.8%
1999	16.7%	12.9%	17.9%	10.8%

Figure 8: Gun Possession by Grade
Carried a Gun Within the Past 30 Days



	9th	10th	11th	12th
1993	11.9%	4.1%	8.7%	7.4%
1995	10.4%	7.9%	8.1%	8.8%
1997	6.4%	6.9%	10.5%	9.7%
1999	3.9%	5.8%	6%	4.7%

Differences by Race

The likelihood of non-white teens to report physical fighting and weapons possession at higher rates than white teens declined over the course of the 1990s.

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

During most YRBS years, a consistently higher rate of reported physical fighting and weapons possession for non-white students was apparent, but this was not a statistically significant difference. By 1999 there was no longer an apparent difference between the two groups.

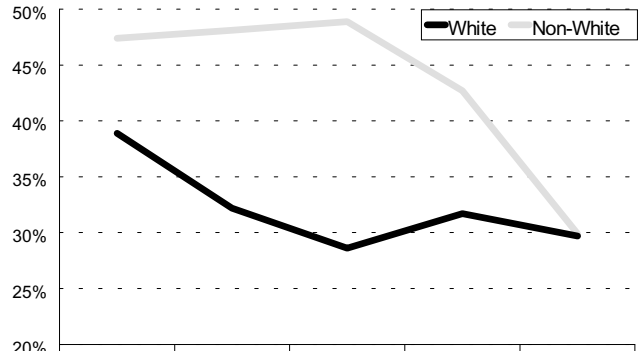
In 1991, 47.4% of non-white teens and 38.9% of white teens reported being involved in a physical fight during the past 12 months **(Fig. 9)**. By 1999, both had decreased to just under 30%.

In 1991, 30.1% of non-white teens and 22.5% of white teens reported carrying a weapon (gun, knife, or club) during the past 30 days **(Fig. 10)**. By 1999, both had declined to approximately 15%.

In 1999, non-white teens were not significantly more likely (8.0%) to report possession of a gun during the past 30 days than white teens (4.8%) **(Fig. 11)**.

Non-white teens were more likely (13.9%) than white teens (4.8%) to report having ever been forced into sex against their will. There was little difference between white and non-white teens in reporting of abuse by a boyfriend or girlfriend in the past 12 months (6.3% vs. 11.6%, respectively).

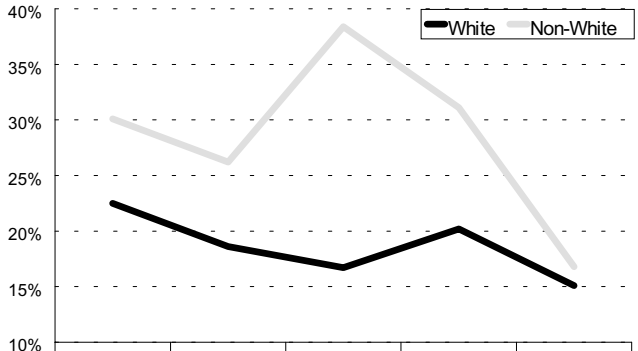
Figure 9: Physical Fight Within Past 12 Months*
High School Students



	1991	1993	1995	1997	1999
White	38.9%	32.2%	28.6%	31.7%	29.7%
Non-White	47.4%	48.1%	48.9%	42.7%	29.9%

*Grade Adjusted

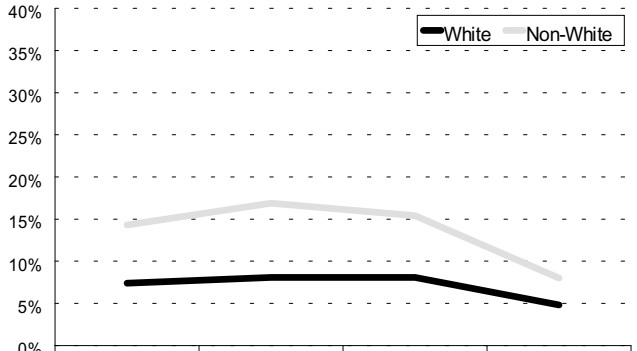
Figure 10: Weapon Possession*
Carried Gun, Knife, or Club in Past 30 Days



	1991	1993	1995	1997	1999
White	22.5%	18.6%	16.7%	20.2%	15.1%
Non-White	30.1%	26.2%	38.4%	31.1%	16.8%

*Grade Adjusted

Figure 11: Gun Possession*
Carried a Gun During the Past 30 Days



	1993	1995	1997	1999
White	7.4%	8.1%	8.1%	4.8%
Non-White	14.3%	16.9%	15.4%	8%

*Grade Adjusted

Violence

Health Objectives for the Year 2010: *Reduce the incidence and severity of unintentional and intentional injuries.*

Public Health Discussion

Violence is a public health problem. Due to the frequency of stories that catch our attention, violence is often viewed as a fact of life, something that is unpredictable and unpreventable. Violence is a problem that can be studied, understood and prevented.

Violence includes homicides, suicides and assaults. Assaults include incidents ranging from sexual assault, robbery, and gang warfare to domestic violence. Incidents of rape, spouse abuse, child abuse and neglect must be considered violence.

"Through fun, recreational activities such as Safe Nights, youth gain knowledge and skills necssary to live violence free lives."

Amy Martin, Safe Nights Coordinator
*AmeriCorps*VISTA, F St. Recreation Center*

For every statistic cited as violence, there is a face. With the exception of suicide, there are at least two faces of violence: a victim and a perpetrator. Many faces are young: children who are physically or sexually abused and growing numbers of youth who commit suicide. Other faces of violence are disproportionately young and black. The homicide rate for a young black male is five times as high as the rate for a young white male in the same age group.[1]

One way to measure the cost of violence is through morbidity (physical and psychological injury) and mortality (death) associated with it. A measure of public health importance is the years of life lost because of violence. For example, if 65 is the average length of a productive life, than death at age 64 would be the loss of one year of productive life. If a 20 year old dies from a gunshot or other act of violence, 45 years of productive life are lost. Although data on nonfatal outcomes of violence are scarce and inadequate, there is overwhelming evidence that morbidity associated with violence represents a tremendous cost to society and the victim. Victims of violence are more likely to have subsequent problems with alcohol and drug abuse, increased rates of suicide, and other forms of self-destructive behavior, including overly aggressive or violent behavior as well as passive behavior that puts them at risk for further victimization. The economic cost of violence includes the cost of medical care, counseling, cost of legal proceedings and incarceration of perpetrators, and the loss in earnings of those who die or are incapacitated by a violent act.

Parental Roles and Responsibilities:

Parents need to exercise leadership in monitoring incidence of physical fighting, assaults and weapon carrying by adolescents.

Unsupervised access to firearms or other lethal weapons is a high risk behavior. Parents have the responsibility of proper storing and monitoring of weapons in the home and to role model a healthy respect for the potential endangerment of life when weapons are in untrained or uncaring hands. Parents who maintain open communication with their children, are active in children's lives and monitor behaviors of children can do much to reduce violence.

Issues of physical fighting leads to assaultive injury or death. Parents should not accept physical fighting as a necessary part of growing up, but as a high risk behavior that needs to be addressed.

Community Roles and Responsibilities:

Comprehensive Health taught in Elementary and Secondary schools can address nonviolent conflict resolution skills.

Support of programs that build self esteem and self worth of youth, and programs that enhance the value of youth to a community are needed. Funding sources are needed that provide comprehensive approaches on long term basis rather than short term financing that limits program longevity.

Policy Makers' Roles and Responsibilities:

Solving the problem of violence will require an interdisciplinary approach of professionals from sociology, criminology, economics, law, public policy, psychology, anthropology and public health working together to understand causes and develop solutions.

These disciplines must agree upon definitions and build compatible data sets. Programs need to be shared, building new bridges with service delivery institutions.

References:

1. Lincoln-Lancaster County Health Department, "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000

Suicide

The Youth Risk Behavior Survey includes questions on feeling sad and hopeless, considering suicide, planning suicide attempts, attempting suicide, and medical treatment for injuries due to a suicide attempt.

Overall Trends

Reported levels of suicidal ideation (thoughts and plans) and attempts among Lancaster County teens declined from 1991 to 1999. There was a steady decline in general indicators for suicide over the five biannual survey years (Figure 1).

The percentage of teens who reported seriously considering suicide during the past 12 months declined from 29.3% in 1991 to 18.3% in 1999. This was the largest decline among the four suicide indicators.

During the 1990s there were also strong declines in planned suicide attempts (21.2% to 14.8%) and reports of suicide attempts (11.1% to 8.1%). There was little change in reported treatment for injury, poisoning, or overdose due to a suicide attempt.

New to the survey in 1999 was an indicator of depression. Over one-fifth (22.2%) of teens reported that at some time during the past 12 months they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing usual activities.

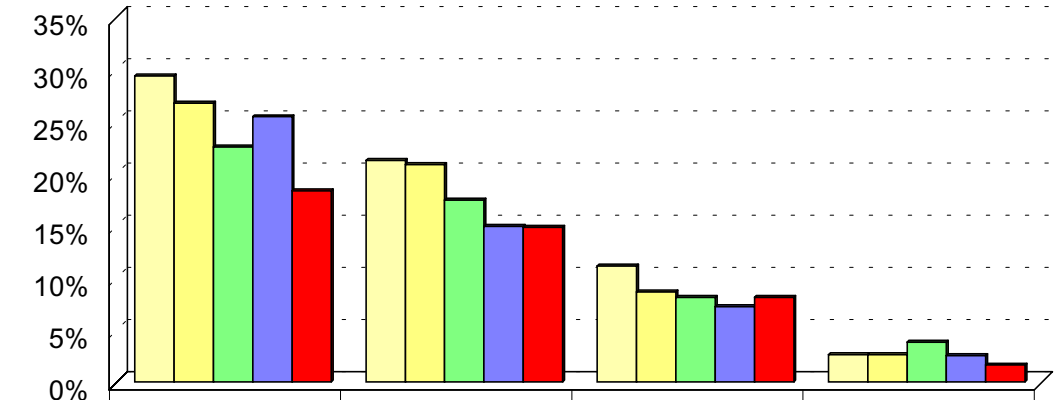
The overall decline in reported suicide, 1991 to 1999, occurred not only in the entire YRBS sample, but also among respondents of different grades, among males as well as females, and white and non-white teens. See the following pages for detail.

Declining rates of suicide ideation (thoughts and plans) in Lancaster County were consistent with declines in the U.S. (1991-1999)[1] and in Nebraska (1993-1997)[2]. Declines in suicide attempts were not as apparent at the state or national level.

1 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, and 1993.

2 Tables published by Buffalo Beach Company, Lincoln, NE

Figure 1: Suicide Ideation and Attempts*
High School Students, Reported During the Past 12 Months



	Seriously Considered Suicide	Planned Suicide Attempt	Attempted Suicide	Treated For Suicide Attempt
1991	29.3%	21.2%	11.1%	2.6%
1993	26.7%	20.8%	8.6%	2.6%
1995	22.5%	17.4%	8.1%	3.8%
1997	25.4%	14.9%	7.2%	2.5%
1999	18.3%	14.8%	8.1%	1.6%

*Grade Adjusted

Differences by Race

In 1999, non-white teens were more likely than white teens to report being depressed, but were not significantly more likely to report suicide thoughts, plans or attempts. All suicide indicators declined among white teens, and reports of suicide thoughts declined among non-white teens (Figs. 10 - 12).

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

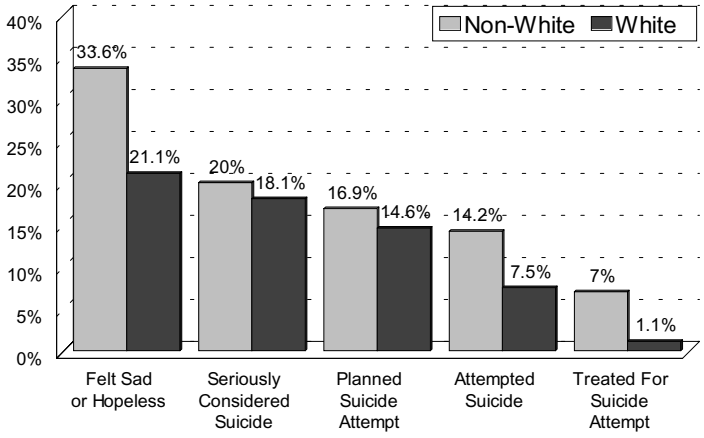
In 1999 non-white teens were more likely (33.6%) than white teens (21.1%) to report that at some time during the past 12 months they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing some usual activities **(Fig. 10)**. Non-white teens were also more likely than white teens to report being treated for a suicide attempt (7.0% vs. 1.1% in 1999).

However, non-white teens were not more likely than white teens to report that they seriously considered suicide, planned a suicide attempt, or attempted suicide **(Fig. 10)**. There was no statistically significant difference between non-white and white teens on these percentages, even though they appear to be higher for non-white teens in Figure 10.

Among white teens there were declines in reported suicide consideration, plans, attempt, and treatment for suicide injuries **(Figs. 11 and 12)**. Among non-white teens, there was a statisically significant decline only in the percentage of teens reporting that they "seriously considered suicide" **(Fig. 11).**

Figure 10: Suicide Ideation and Attempts*

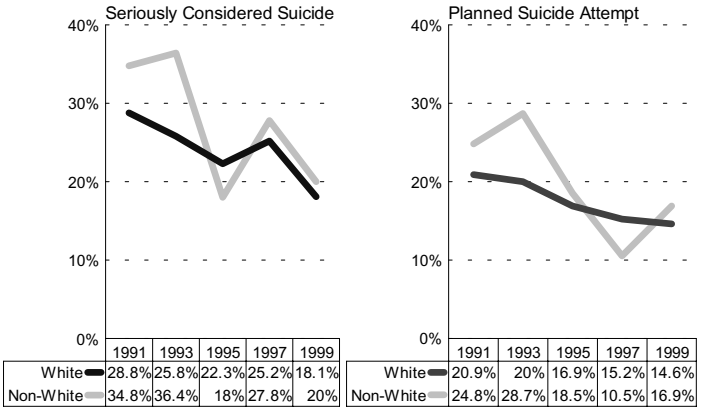
1999 High School Students, Reported During the Past 12 Months



*Grade Adjusted

Figure 11: Suicide Ideation*

High School Students, Reported During the Past 12 Months



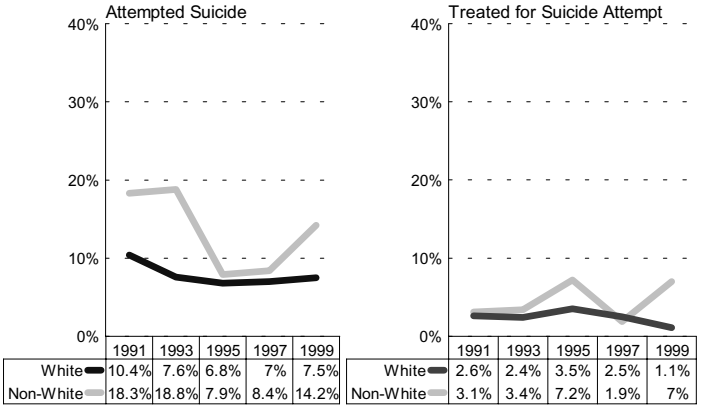
	1991	1993	1995	1997	1999
White	28.8%	25.8%	22.3%	25.2%	18.1%
Non-White	34.8%	36.4%	18%	27.8%	20%

	1991	1993	1995	1997	1999
White	20.9%	20%	16.9%	15.2%	14.6%
Non-White	24.8%	28.7%	18.5%	10.5%	16.9%

*Grade Adjusted

Figure 12: Suicide Attempts and Injuries*

High School Students, Reported During the Past 12 Months



	1991	1993	1995	1997	1999
White	10.4%	7.6%	6.8%	7%	7.5%
Non-White	18.3%	18.8%	7.9%	8.4%	14.2%

	1991	1993	1995	1997	1999
White	2.6%	2.4%	3.5%	2.5%	1.1%
Non-White	3.1%	3.4%	7.2%	1.9%	7%

*Grade Adjusted

Suicide

Differences by Gender

During the 1990s, female teens reported higher levels of depression, suicide thoughts, and suicide plans, than did male students. Reported suicide "consideration" declined for both males and females. However there were significant declines in suicide plans, attempts and treatment among females only (Figs. 2 - 4).

In 1999, female teens were more likely (26.8%) than male teens (17.1%) to report that, at some time during the past 12 months, they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing usual activities **(Fig. 2)**.

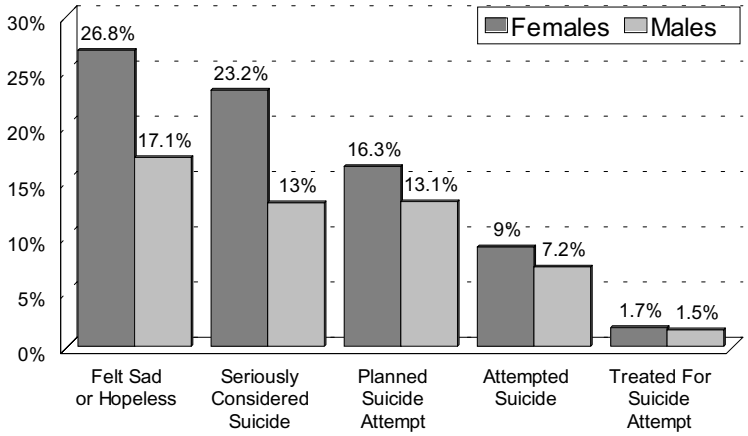
Females were also more likely than males to report that they seriously considered suicide or planned a suicide attempt **(Fig. 2)**. However, there were no statistically significant differences between males and females in reported suicide attempts or medical treatment.

From 1991 to 1999, female teens were consistently more likely than male teens to report having seriously considered or planned a suicide attempt **(Fig. 3)**. There was little difference between males and females in reports of either suicide attempts or injuries requiring medical treatment **(Fig. 4)**.

Reported suicide thoughts ("serious consideration") declined for both males and females from 1991 to 1999. However, only among females were there statistically significant declines in reported suicide plans, attempts and treatment **(Figs. 3 and 4)**.

Figure 2: Suicide Ideation and Attempts*

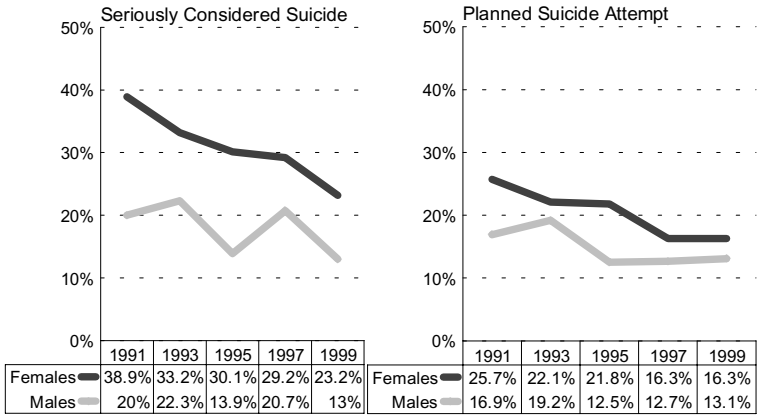
1999 High School Students, Reported During the Past 12 Months



*Grade Adjusted

Figure 3: Suicide Ideation*

High School Students, Reported During the Past 12 Months



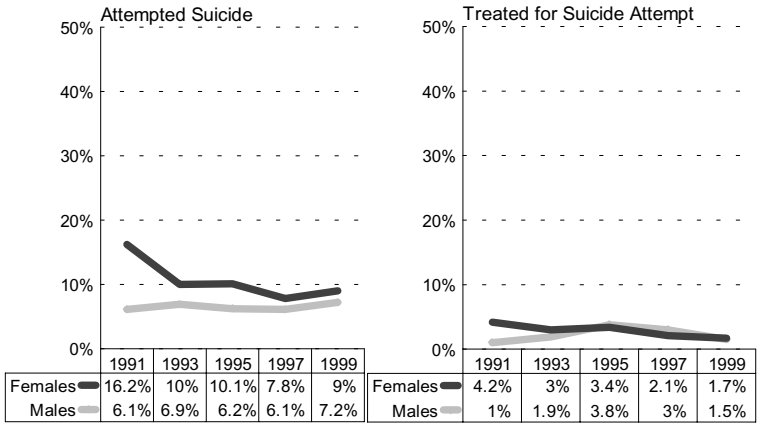
	1991	1993	1995	1997	1999
Females	38.9%	33.2%	30.1%	29.2%	23.2%
Males	20%	22.3%	13.9%	20.7%	13%

	1991	1993	1995	1997	1999
Females	25.7%	22.1%	21.8%	16.3%	16.3%
Males	16.9%	19.2%	12.5%	12.7%	13.1%

*Grade Adjusted

Figure 4: Suicide Attempts and Injuries*

High School Students, Reported During the Past 12 Months



	1991	1993	1995	1997	1999
Females	16.2%	10%	10.1%	7.8%	9%
Males	6.1%	6.9%	6.2%	6.1%	7.2%

	1991	1993	1995	1997	1999
Females	4.2%	3%	3.4%	2.1%	1.7%
Males	1%	1.9%	3.8%	3%	1.5%

*Grade Adjusted

Suicide

Differences by Grade

Over the five biannual Youth Risk Behavior Survey years, 1991 - 1999, reported suicide thoughts, attempts and injuries decreased for teens in individual grades, as well as for all teens. In recent survey years there has been little correlation between grade level and suicide ideation, although teens in younger grades remain more likely to report suicide attempts.

In recent survey years (1997 and 1999) there has been no consistent relationship between grade level and reported prevalence of suicide thoughts, plans and injuries. For example, in 1999 the percentage of teens reporting that they considered suicide within the past 12 months **(Fig. 5)** was not consistently higher in younger grades: 17.5% (9th grade), 18.9% (10th grade), 20.7% (11th grade), 16.0% (12th grade).

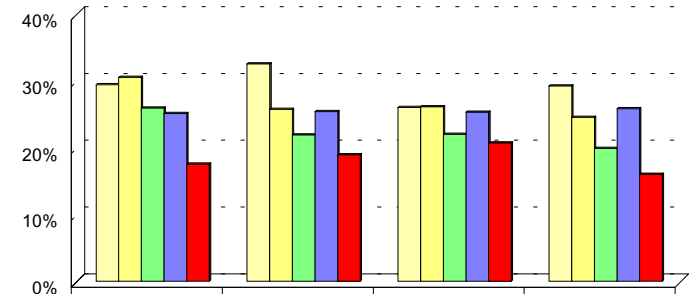
This may represent a change from the earlier 1990s (1991 to 1995), when younger teens (grades 9 and 10) were slightly more likely than older teens (grades 11 and 12) to report seriously considering suicide, planning a suicide attempt, or injuries due to suicide **(Figs. 5, 6 and 8)**. For example, in 1995, the percentage of teens reporting that they planned a suicide attempt in the past 12 months **(Fig. 6)** was highest among 9th graders and decreased with grade level: 21.7% (9th), 19.0% (10th), 15.9% (11th), and 12.6% (12th).

Teens in younger grades have been more likely than those in older grades to report suicide attempts in each of the five biannual survey years **(Fig. 7).** In 1991, 14.3% of 9th graders and 8.3% of 12th graders reported a suicide attempt in the past year. The difference was similar in 1999, with 13.2% of 9th graders and 6.1% of 12th graders reporting an attempt.

Declines in reported suicide ideation and attempts from 1991 to 1999 occurred in all grades **(Figs. 5, 6 and 7).** Among 9th graders, for example, reported suicide consideration declined from 29.4% to 17.5%, and reported suicide plans declined from 22.8% to 13.6%. Among 10th graders, reported suicide plans declined from 24.6% to 11.2% and reported suicide attempts declined from 12.8% to 5.3%.

Figure 5: Suicide Consideration by Grade

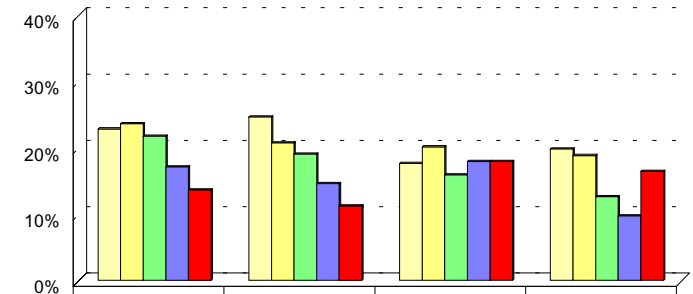
High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	29.4%	32.5%	26%	29.2%
1993	30.5%	25.7%	26.1%	24.5%
1995	25.9%	21.9%	22%	19.9%
1997	25.1%	25.4%	25.3%	25.8%
1999	17.5%	18.9%	20.7%	16%

Figure 6: Planned Suicide Attempt by Grade

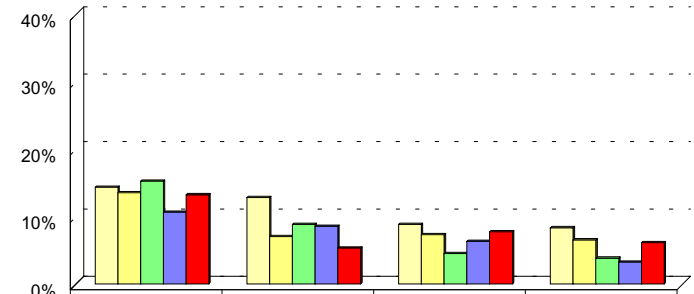
High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	22.8%	24.6%	17.6%	19.8%
1993	23.6%	20.7%	20.1%	18.8%
1995	21.7%	19%	15.9%	12.6%
1997	17.1%	14.6%	17.9%	9.7%
1999	13.6%	11.2%	17.9%	16.4%

Figure 7: Suicide Attempt by Grade

High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	14.3%	12.8%	8.8%	8.3%
1993	13.5%	7%	7.3%	6.5%
1995	15.2%	8.8%	4.5%	3.8%
1997	10.6%	8.5%	6.3%	3.2%
1999	13.2%	5.3%	7.7%	6.1%

Differences by Grade

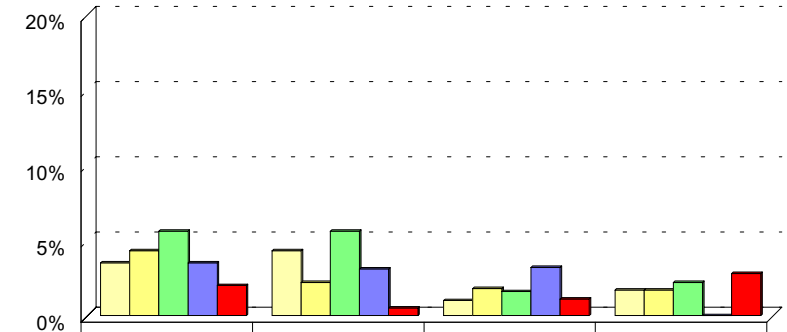
For reported injuries due to suicide attempts, declines overall from 1991 to 1999 occurred only among 9th and 10th graders **(Fig. 8)**.

Older teens were more likely than younger teens to report depression at some time during the past 12 months (new question in 1999). Nearly one-fourth of 12th (24.4%) and 11th (24.5%) graders, along with one-fifth of 10th graders (20.4%) and 9th graders (19.5%) reported that at some time during the past 12 months they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing some usual activities.

Figure 9 provides a summary graph of suicide indicators in the 1999 YRBS, by grade.

Figure 8: Treated for Suicide Attempt, by Grade

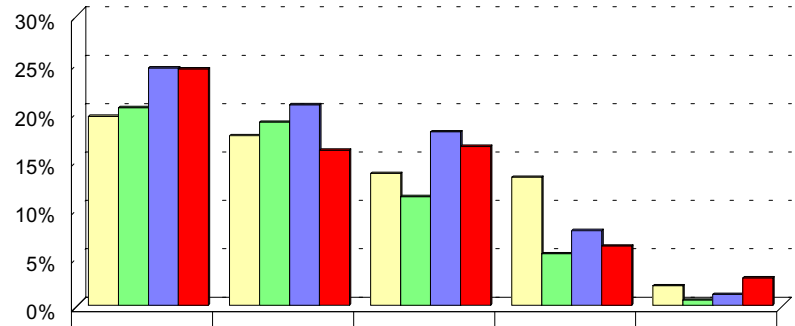
High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	3.5%	4.3%	1%	1.7%
1993	4.3%	2.2%	1.8%	1.7%
1995	5.6%	5.6%	1.6%	2.2%
1997	3.5%	3.1%	3.2%	0%
1999	2%	0.5%	1.1%	2.8%

Figure 9: Suicide Ideation and Attempts

1999 High School Students, Reported During the Past 12 Months



	Felt Sad or Hopeless	Seriously Considered Suicide	Planned Suicide Attempt	Attempted Suicide	Treated For Suicide Attempt
9th	19.5%	17.5%	13.6%	13.2%	2%
10th	20.4%	18.9%	11.2%	5.3%	0.5%
11th	24.5%	20.7%	17.9%	7.7%	1.1%
12th	24.4%	16%	16.4%	6.1%	2.8%

Suicide

Differences by Gender

During the 1990s, female teens reported higher levels of depression, suicide thoughts, and suicide plans, than did male students. Reported suicide "consideration" declined for both males and females. However there were significant declines in suicide plans, attempts and treatment among females only (Figs. 2 - 4).

In 1999, female teens were more likely (26.8%) than male teens (17.1%) to report that, at some time during the past 12 months, they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing usual activities **(Fig. 2)**.

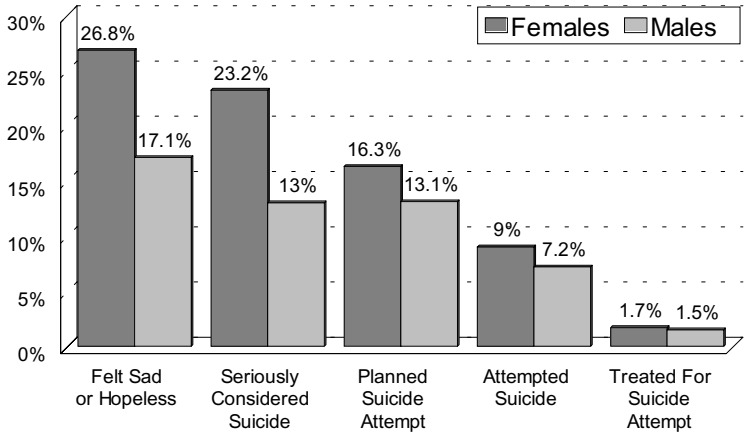
Females were also more likely than males to report that they seriously considered suicide or planned a suicide attempt **(Fig. 2)**. However, there were no statistically significant differences between males and females in reported suicide attempts or medical treatment.

From 1991 to 1999, female teens were consistently more likely than male teens to report having seriously considered or planned a suicide attempt **(Fig. 3)**. There was little difference between males and females in reports of either suicide attempts or injuries requiring medical treatment **(Fig. 4)**.

Reported suicide thoughts ("serious consideration") declined for both males and females from 1991 to 1999. However, only among females were there statistically significant declines in reported suicide plans, attempts and treatment **(Figs. 3 and 4)**.

Figure 2: Suicide Ideation and Attempts*

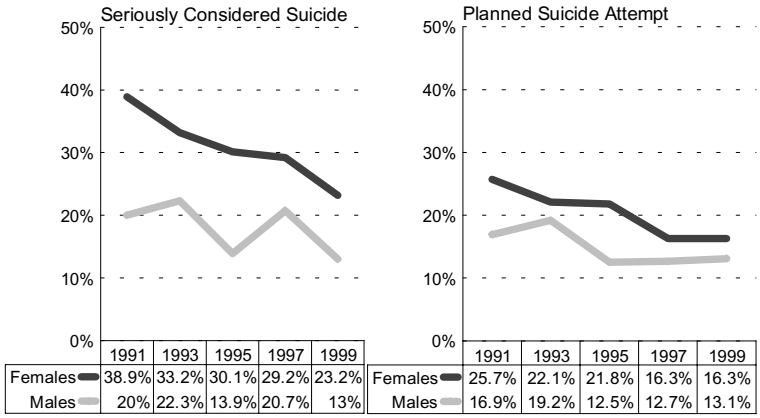
1999 High School Students, Reported During the Past 12 Months



*Grade Adjusted

Figure 3: Suicide Ideation*

High School Students, Reported During the Past 12 Months



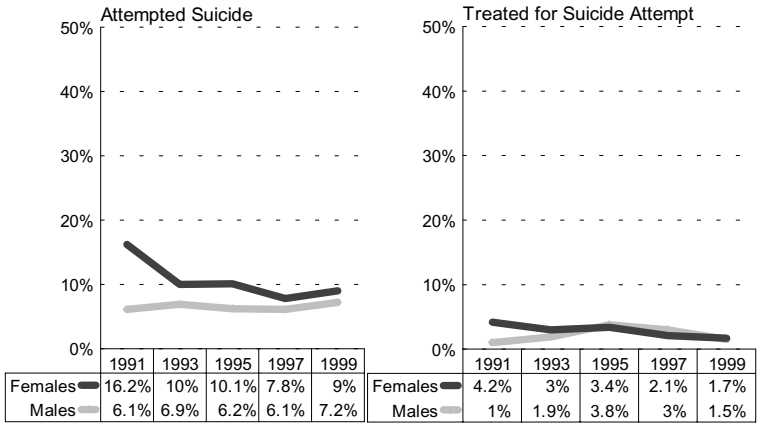
	1991	1993	1995	1997	1999
Females	38.9%	33.2%	30.1%	29.2%	23.2%
Males	20%	22.3%	13.9%	20.7%	13%

	1991	1993	1995	1997	1999
Females	25.7%	22.1%	21.8%	16.3%	16.3%
Males	16.9%	19.2%	12.5%	12.7%	13.1%

*Grade Adjusted

Figure 4: Suicide Attempts and Injuries*

High School Students, Reported During the Past 12 Months



	1991	1993	1995	1997	1999
Females	16.2%	10%	10.1%	7.8%	9%
Males	6.1%	6.9%	6.2%	6.1%	7.2%

	1991	1993	1995	1997	1999
Females	4.2%	3%	3.4%	2.1%	1.7%
Males	1%	1.9%	3.8%	3%	1.5%

*Grade Adjusted

Suicide

Differences by Grade

Over the five biannual Youth Risk Behavior Survey years, 1991 - 1999, reported suicide thoughts, attempts and injuries decreased for teens in individual grades, as well as for all teens. In recent survey years there has been little correlation between grade level and suicide ideation, although teens in younger grades remain more likely to report suicide attempts.

In recent survey years (1997 and 1999) there has been no consistent relationship between grade level and reported prevalence of suicide thoughts, plans and injuries. For example, in 1999 the percentage of teens reporting that they considered suicide within the past 12 months **(Fig. 5)** was not consistently higher in younger grades: 17.5% (9th grade), 18.9% (10th grade), 20.7% (11th grade), 16.0% (12th grade).

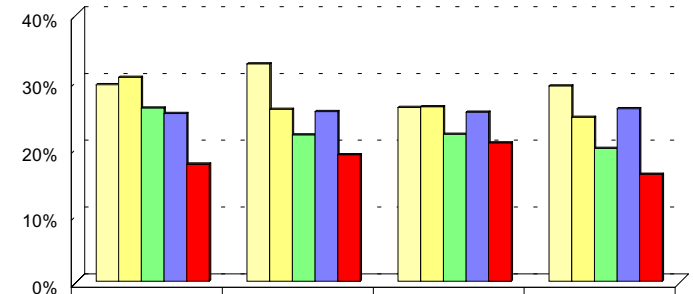
This may represent a change from the earlier 1990s (1991 to 1995), when younger teens (grades 9 and 10) were slightly more likely than older teens (grades 11 and 12) to report seriously considering suicide, planning a suicide attempt, or injuries due to suicide **(Figs. 5, 6 and 8)**. For example, in 1995, the percentage of teens reporting that they planned a suicide attempt in the past 12 months **(Fig. 6)** was highest among 9th graders and decreased with grade level: 21.7% (9th), 19.0% (10th), 15.9% (11th), and 12.6% (12th).

Teens in younger grades have been more likely than those in older grades to report suicide attempts in each of the five biannual survey years **(Fig. 7).** In 1991, 14.3% of 9th graders and 8.3% of 12th graders reported a suicide attempt in the past year. The difference was similar in 1999, with 13.2% of 9th graders and 6.1% of 12th graders reporting an attempt.

Declines in reported suicide ideation and attempts from 1991 to 1999 occurred in all grades **(Figs. 5, 6 and 7).** Among 9th graders, for example, reported suicide consideration declined from 29.4% to 17.5%, and reported suicide plans declined from 22.8% to 13.6%. Among 10th graders, reported suicide plans declined from 24.6% to 11.2% and reported suicide attempts declined from 12.8% to 5.3%.

Figure 5: Suicide Consideration by Grade

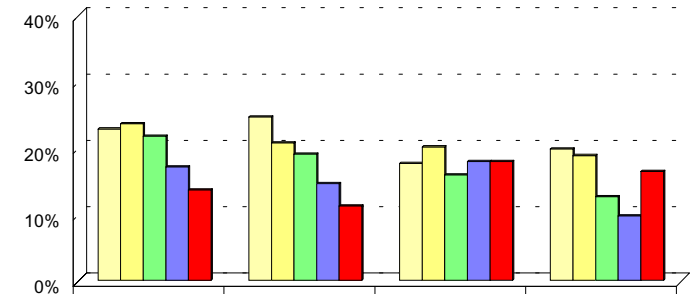
High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	29.4%	32.5%	26%	29.2%
1993	30.5%	25.7%	26.1%	24.5%
1995	25.9%	21.9%	22%	19.9%
1997	25.1%	25.4%	25.3%	25.8%
1999	17.5%	18.9%	20.7%	16%

Figure 6: Planned Suicide Attempt by Grade

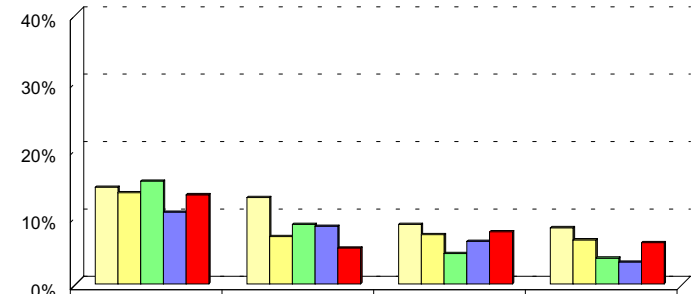
High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	22.8%	24.6%	17.6%	19.8%
1993	23.6%	20.7%	20.1%	18.8%
1995	21.7%	19%	15.9%	12.6%
1997	17.1%	14.6%	17.9%	9.7%
1999	13.6%	11.2%	17.9%	16.4%

Figure 7: Suicide Attempt by Grade

High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	14.3%	12.8%	8.8%	8.3%
1993	13.5%	7%	7.3%	6.5%
1995	15.2%	8.8%	4.5%	3.8%
1997	10.6%	8.5%	6.3%	3.2%
1999	13.2%	5.3%	7.7%	6.1%

Differences by Grade

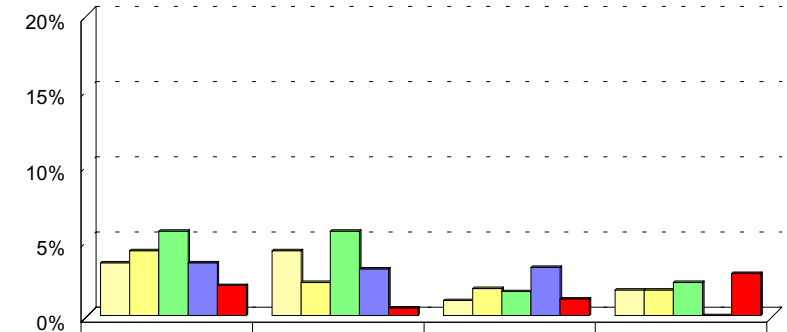
For reported injuries due to suicide attempts, declines overall from 1991 to 1999 occurred only among 9th and 10th graders **(Fig. 8)**.

Older teens were more likely than younger teens to report depression at some time during the past 12 months (new question in 1999). Nearly one-fourth of 12th (24.4%) and 11th (24.5%) graders, along with one-fifth of 10th graders (20.4%) and 9th graders (19.5%) reported that at some time during the past 12 months they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing some usual activities.

Figure 9 provides a summary graph of suicide indicators in the 1999 YRBS, by grade.

Figure 8: Treated for Suicide Attempt, by Grade

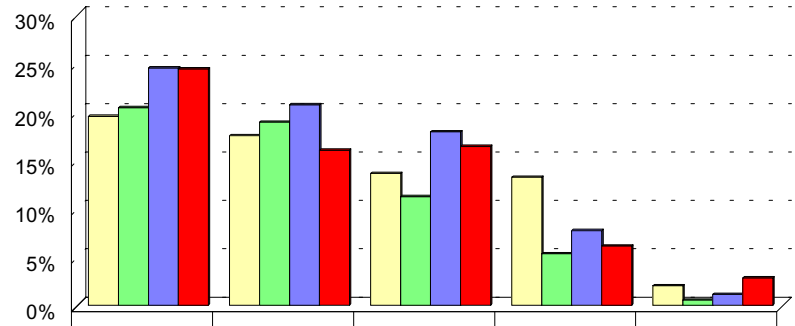
High School Students, Reported During the Past 12 Months



	9th	10th	11th	12th
1991	3.5%	4.3%	1%	1.7%
1993	4.3%	2.2%	1.8%	1.7%
1995	5.6%	5.6%	1.6%	2.2%
1997	3.5%	3.1%	3.2%	0%
1999	2%	0.5%	1.1%	2.8%

Figure 9: Suicide Ideation and Attempts

1999 High School Students, Reported During the Past 12 Months



	Felt Sad or Hopeless	Seriously Considered Suicide	Planned Suicide Attempt	Attempted Suicide	Treated For Suicide Attempt
9th	19.5%	17.5%	13.6%	13.2%	2%
10th	20.4%	18.9%	11.2%	5.3%	0.5%
11th	24.5%	20.7%	17.9%	7.7%	1.1%
12th	24.4%	16%	16.4%	6.1%	2.8%

Differences by Race

In 1999, non-white teens were more likely than white teens to report being depressed, but were not significantly more likely to report suicide thoughts, plans or attempts. All suicide indicators declined among white teens, and reports of suicide thoughts declined among non-white teens (Figs. 10 - 12).

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

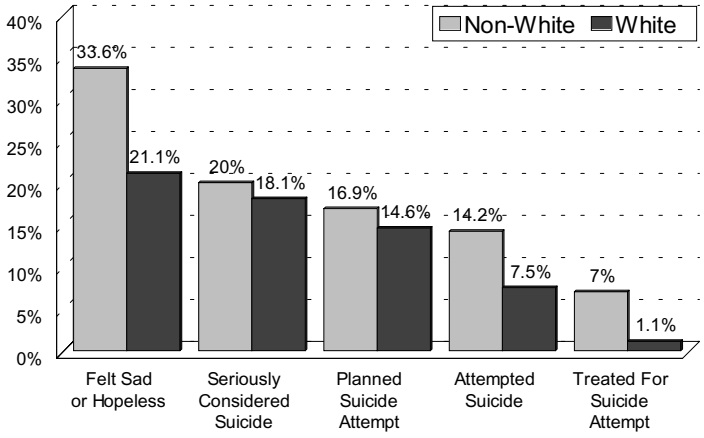
In 1999 non-white teens were more likely (33.6%) than white teens (21.1%) to report that at some time during the past 12 months they felt so sad or hopeless, almost every day in a row for two weeks or more, that they stopped doing some usual activities **(Fig. 10)**. Non-white teens were also more likely than white teens to report being treated for a suicide attempt (7.0% vs. 1.1% in 1999).

However, non-white teens were not more likely than white teens to report that they seriously considered suicide, planned a suicide attempt, or attempted suicide **(Fig. 10)**. There was no statistically significant difference between non-white and white teens on these percentages, even though they appear to be higher for non-white teens in Figure 10.

Among white teens there were declines in reported suicide consideration, plans, attempt, and treatment for suicide injuries **(Figs. 11 and 12)**. Among non-white teens, there was a statisically significant decline only in the percentage of teens reporting that they "seriously considered suicide" **(Fig. 11).**

Figure 10: Suicide Ideation and Attempts*

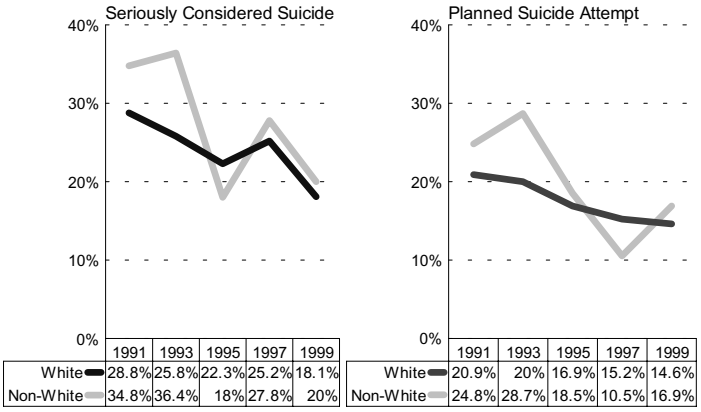
1999 High School Students, Reported During the Past 12 Months



*Grade Adjusted

Figure 11: Suicide Ideation*

High School Students, Reported During the Past 12 Months



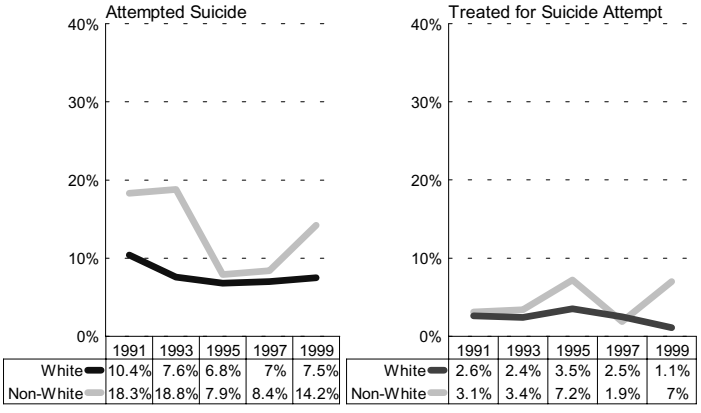
	1991	1993	1995	1997	1999
White	28.8%	25.8%	22.3%	25.2%	18.1%
Non-White	34.8%	36.4%	18%	27.8%	20%

	1991	1993	1995	1997	1999
White	20.9%	20%	16.9%	15.2%	14.6%
Non-White	24.8%	28.7%	18.5%	10.5%	16.9%

*Grade Adjusted

Figure 12: Suicide Attempts and Injuries*

High School Students, Reported During the Past 12 Months



	1991	1993	1995	1997	1999
White	10.4%	7.6%	6.8%	7%	7.5%
Non-White	18.3%	18.8%	7.9%	8.4%	14.2%

	1991	1993	1995	1997	1999
White	2.6%	2.4%	3.5%	2.5%	1.1%
Non-White	3.1%	3.4%	7.2%	1.9%	7%

*Grade Adjusted

Suicide

Health Objectives for the Year 2010: *Reduce the incidence and severity of unintentional and intentional injuries.*

Public Health Discussion

Today's youth are often considered to be in a state of crisis. Research shows that by the time children become teenagers, nearly 20% have already experienced depression at some time in their lives. Approximately half of all adolescents are at moderate risk of engaging in one or more self destructive behaviors, including unsafe sex, teenage pregnancy and child-bearing, drug and alcohol abuse, underachievement, dropping out of or failing school, and delinquent or criminal behavior. Many of these problems are interrelated. Some of them are related to a multitude of outside influences including physical abuse, social violence in the streets and at home, and a media that portrays promiscuous sex, drug abuse, and violence as normal behavior.[1]

Suicide is the ninth leading cause of death in the United States. The risk factors for suicide frequently occur in combination. Scientific research has shown that almost all people who take their own lives have a treatable mental or substance-abuse disorder. The majority have more than one disorder. Suicide remains a complex behavior that requires intensive preventive intervention.[1]

The fact that many teenagers engage in risk behaviors that greatly increase their likelihood of death leads some health experts to believe that such behaviors may, in fact, be suicidal in nature.

"Of significant public health concern are youth attitudes toward risky behaviors, including thoughts of suicide. We care about young people and use this information to impact suicide prevention programming and awareness, assuring that programs exist to improve their quality of life."

Kate Speck, Adolescent and Family Health
Lincoln Medical Education Foundation

Multiple risk factors seem to play a role, e.g. students who engage in substance abuse and/or sexual activity are more likely to attempt suicide.

Parental Roles and Responsibilities:

Three fundamental human needs are critical to survival and healthy development of young people.

First is the need to be a valued member of a group that provides mutual support and caring relationships. Second is the need to become a socially competent individual who has the skills to cope successfully with life. Third is the need to believe in a promising future with real opportunities. Suicide and other self-destructive behaviors often occur when adolescents feel that filling their needs is an unattainable goal. Scientific research has shown that recognition and appropriate treatment of mental and substance-abuse disorders is the most promising way to prevent suicide and suicidal behavior in all age groups.

Community Roles and Responsibilities:

Prevention strategies and recommendations suggested in the Lincoln/Lancaster County Health Department Healthy People 2010 Report include:

1. Promote early access to mental health diagnostic services for children and youth.
2. Develop broad-based school and community programs to address suicide and suicidal behavior as part of a broader focus on mental health, stressing coping skills, substance abuse, and aggressive behavior.
3. Seek to enhance communication between mental health professionals and primary care providers so that concepts of mental health are integrated in the overall health assessment of children and youth.
4. Promote anti-stigma campaigns for mental health services, stressing the value and successes of early intervention.

Policy Makers' Roles and Responsibilities:

Community efforts and individuals can assist greatly in mental health efforts of agencies and health professionals.

1. Encourage equal health insurance benefits for mental health care as with physical health care.
2. Encourage training of school staff to enable them to identify students at risk of suicide, including the training of staff to respond to tragic deaths or other crisis.
3. Encourage training of community members, such as clergy, police, health professionals and youth workers to help identify young people at risk of suicide.
4. Help the community provide adequate crisis centers and hotlines offering referrals to mental health services.
5. Support community programs that build self-esteem and positive self image of youth.
6. Restrict youth access to means of suicide, such as firearms and drugs.

References:

1. Lincoln-Lancaster County Health Department, "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000

Helmet and Seatbelt Use

The Youth Risk Behavior Survey includes questions on use of motorcycle helmets, bicycle helmets, and seatbelts.

Overall Trends

There was very little improvement from 1991 to 1999 in reported usage of bicycle or motorcycle helmets by Lancaster County teens. Reported seatbelt use improved from 1991 to 1993 but thereafter changed little (Figures 1 and 2).

In 1999, 22.2% of teens reported riding a motorcycle in the past 12 months, as compares to 20.2% (1997), 23.9% (1995), 26.3% (1993), and 33.0% (1991) in previous years. Among these motorcycle riders, the percentage reporting that they never or rarely wear a helmet changed little during the 1990s, remaining at one in three riders in 1999 **(Fig. 1)**.

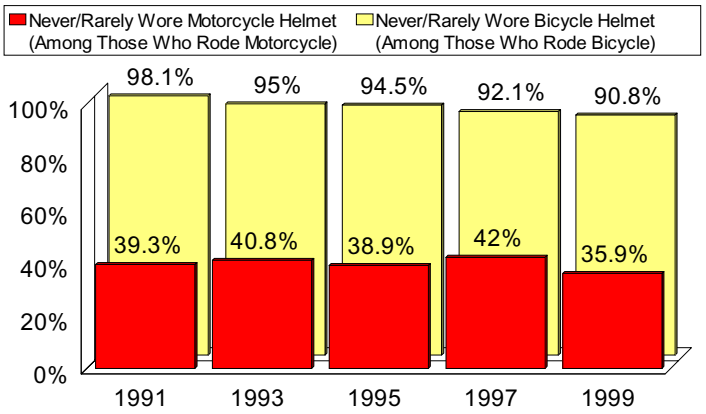
In 1999, 77.6% of teens reported that they rode a bicycle in the past month, as compares to 86.5% (1997), 77.9% (1995), 78.6% (1993), and 82.6% (1991) in previous years. Reported helmet usage remains infrequent among bicycle riders. In 1999, nine in ten bicycle riders (90.8%) reported that they never or rarely wear a helmet **(Fig. 1)**. This may be an improvement (though not a statistically significant one) from 1991, when 98.1% reported never or rarely wearing a helmet.

Increases in reported seatbelt use were also modest over the 1990s. The percentage of teens who reported always wearing their seatbelts when riding in a car driven by someone else increased from 16.7% in 1991 to 33.5% in 1993, but since 1993 has changed little **(Fig. 2)**. In 1999, still only one-third of teens (36.4%) reported always wearing a seatbelt when riding in a car driven by someone else.

These modest improvements in reported helmet and seatbelt use over the 1990s generally held true for respondents of different grades, males and females, and white and non-white teens. See the following pages for detail.

The trends were also consistent with trends in the same indicators for Nebraska (1993 to 1997)[1] and the U.S. (1991-1999)[2] as a whole.

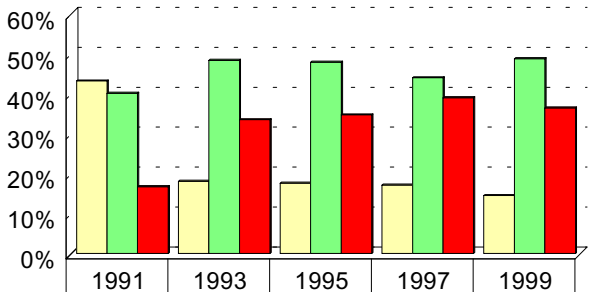
Figure 1: Helmet Use*
High School Students**



** Who Reported Riding a Motorcycle or Bicycle During the Past 12 Months

*Grade Adjusted

Figure 2: Seatbelt Use*
High School Students Who Rode With Someone Else



	1991	1993	1995	1997	1999
Never/Rarely	43.2%	18.1%	17.6%	17.1%	14.5%
Some/Most of Time	40.1%	48.4%	47.9%	44%	48.8%
Always	16.7%	33.5%	34.7%	39%	36.4%

*Grade Adjusted

1 Tables published by Buffalo Beach Company, Lincoln, NE

2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Helmet and Seatbelt Use

Differences by Gender

Although reported helmet and seat belt use improved somewhat during the 1990s for male and female teens, males continued to put themselves at higher risk than females by infrequently using seatbelts and motorcycle helmets (Figs. 3 - 5).

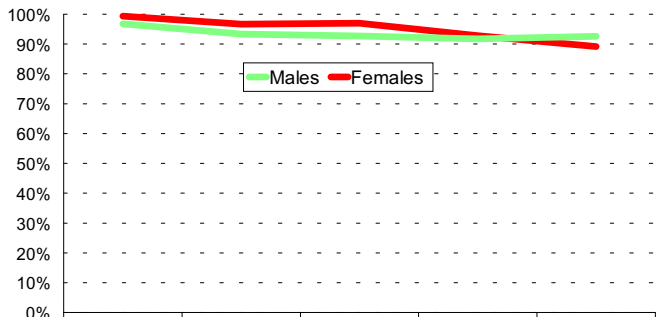
Of those teens who reported riding a bicycle during the past 12 months, the percentage of teens who reported never or rarely wearing a helmet when riding did not decline for either female and male teens from 1991 to 1999 (no statistically signficant decline) **(Fig. 3)**. There has been little difference between reporting by male or female bicycle riders that they never or rarely wear a helmet -- 92.6% vs. 89.1%, respectively, in 1999.

There was a clearer disparity between males and females in reported motorcycle helmet use **(Fig. 4)**. Male teens who ride motorcycles have been more likely to report wearing helmets "rarely or never" than female motorcycle riders -- 46.7% for males vs. 20.1% for females in 1999. Female helmet usage appeared to improve somewhat during the 1990s, although this was not a statistically significant improvement -- the percentage reporting never or rarely wearing a helmet was 31.1% in 1991 and 20.1% in 1999.

Females have also been more likely to report that they always wear a seatbelt when riding in a car driven by someone else -- for example, 41.0% for females vs. 31.6% for males in 1999 **(Fig. 5)**. This indicator improved for both males and females over the 1990s.

Figure 3: Rare Helmet Use (Bicycle)*

Never or Rarely Wore a Bicycle Helmet
(High School Students Who Reported Riding Bicycle in Past 12 Months)

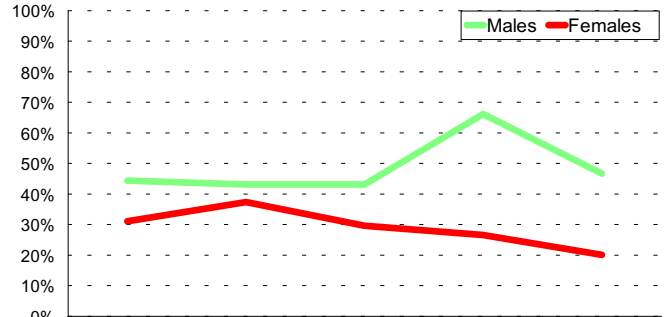


	1991	1993	1995	1997	1999
Males	96.8%	93.3%	92.7%	91.7%	92.6%
Females	99.3%	96.6%	97%	92.8%	89.1%

*Grade Adjusted

Figure 4: Rare Helmet Use (Motorcycle)*

Never or Rarely Wore a Motorcycle Helmet
(High School Students Who Reported Riding Motorcycle in Past 12 Months)

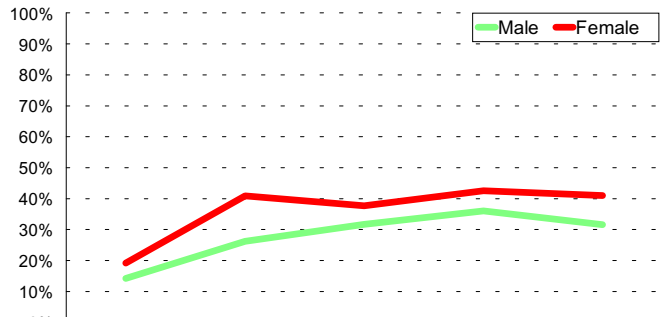


	1991	1993	1995	1997	1999
Males	44.4%	43.1%	43.1%	66.2%	46.7%
Females	31.1%	37.4%	29.6%	26.6%	20.1%

*Grade Adjusted

Figure 5: Seatbelt Use*

Always Wear a Seatbelt When Riding in a Car Driven by Someone Else
High School Students



	1991	1993	1995	1997	1999
Male	14.2%	26.2%	31.7%	36%	31.6%
Female	19.2%	40.9%	37.7%	42.6%	41%

*Grade Adjusted

Helmet and Seatbelt Use

Differences by Grade

From 1991 to 1999, teens in older grades were slightly more likely than those in younger grades to report seatbelt use. There were improvements in reported seatbelt use among all grades. Improvements and differences in reported bicycle helmet use were not sigificant (Figs. 6 and 7).

Bicycle helmet use reported by teens did not vary noticeably by grade during the 1990s **(Fig. 6)**. Slight (though not statisically significant) improvements in bicycle helmet use, 1991 to 1999, were apparent among all grades.

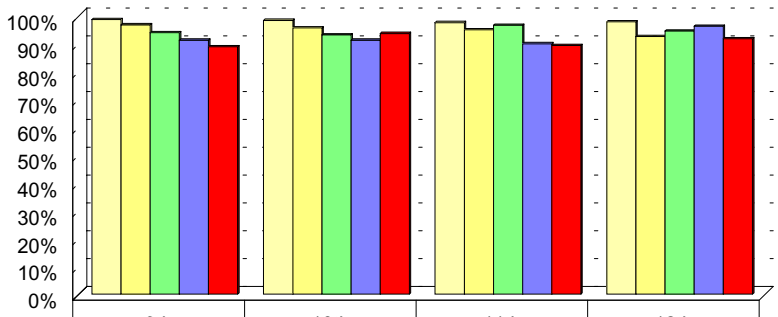
The number of motorcycle riders responding to the YRBS was too small to examine YRBS helmet use trends by grade.

Older teens were slightly more likely than younger ones to report seatbelt use during the 1990s **(Fig. 7)**. For example, in 1999, 39.9% of 12th graders vs. 33.5% of 9th graders reported that they always wear a seatbelt when riding in a car driven by someone else.

Statistically significant improvements in seatbelt use occurred among all grades from 1991 to 1999 **(Fig. 7)**. For example, the percentage of 12th graders reporting that they always wear a seatbelt, when riding in a car driven by someone else, increased from 16.8% in 1991 to 39.9% in 1999.

Figure 6: Rare Helmet Use (Bicycle) by Grade

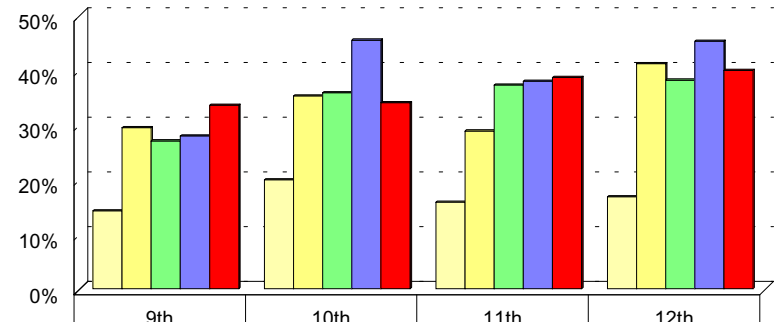
Never or Rarely Wore a Bicycle Helmet
(High School Students Who Reported Riding Bicycle in Past 12 Months)



	9th	10th	11th	12th
1991	98.6%	98.3%	97.5%	97.8%
1993	96.7%	95.6%	94.9%	92.5%
1995	93.9%	93.1%	96.5%	94.5%
1997	91.2%	91.2%	89.9%	96.2%
1999	88.8%	93.6%	89.3%	91.7%

Figure 7: Seatbelt Use by Grade

Always Wear a Seatbelt When Riding in a Car Driven by Someone Else
High School Students



	9th	10th	11th	12th
1991	14.2%	19.9%	15.8%	16.8%
1993	29.4%	35.2%	28.8%	41.1%
1995	27%	35.8%	37.2%	38.1%
1997	27.9%	45.4%	37.9%	45.2%
1999	33.5%	34%	38.6%	39.9%

Helmet and Seatbelt Use

Differences by Race

White teens have been slightly more likely than non-white teens to report seatbelt use. There was an improvement in reported seatbelt use among both white and non-white teens during the 1990s. Improvements or differences in bicycle helmet use were not statistically sigificant (Figs. 8 - 9).

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

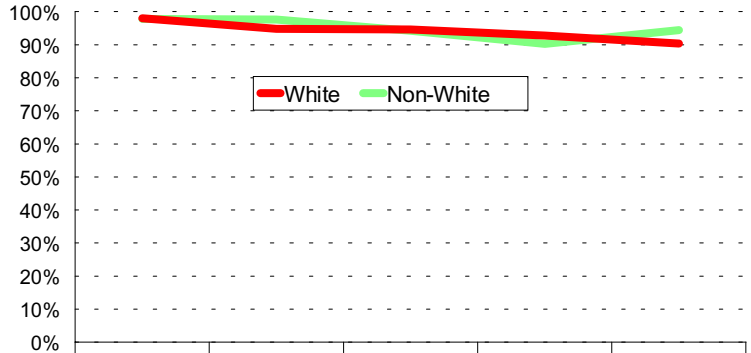
Of those teens who reported riding a bicycle during the past 12 months, the percentage who reported never or rarely wearing a helmet did not decline (no statistically significant decline) for either white or non-white teens from 1991 to 1999 **(Fig. 8)**. There has been little difference between white and non-white bicycle riders in their reports that they never or rarely wear a helmet -- 90.4% vs. 94.4%, respectively, in 1999.

The number of motorcycle riders was too small to examine YRBS helmet use trends by white/non-white status.

White teens have been more likely than non-white teens to report consistent seatbelt use **(Fig. 9)**. In 1999, white teens were 1.6 times more likely than non-white teens to report always wearing a seatbelt when riding in a car driven by someone else (37.7% of white teens and 23.0% of non-white teens). Reports of consistent seatbelt use increased for both groups from 1991 to 1999.

Figure 8: Rare Helmet Use (Bicycle)*

Never or Rarely Wore a Bicycle Helmet
(High School Students Who Reported Riding Bicycle in Past 12 Months)

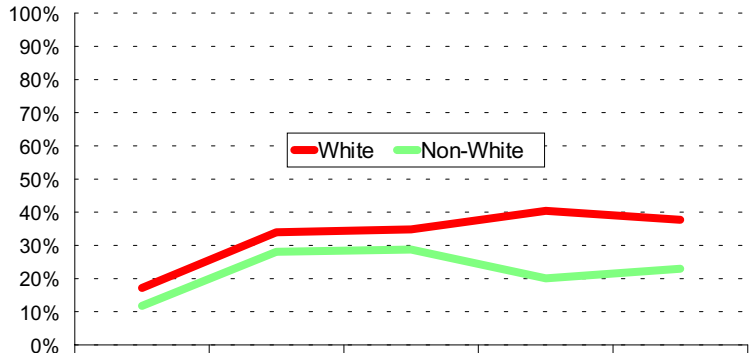


	1991	1993	1995	1997	1999
White	98%	94.8%	94.6%	92.8%	90.4%
Non-White	97.8%	97.6%	94.2%	90.3%	94.4%

*Grade Adjusted

Figure 9: Seatbelt Use*

Always Wear a Seatbelt When Riding in a Car Driven by Someone Else
High School Students



	1991	1993	1995	1997	1999
White	17.2%	34%	34.8%	40.4%	37.7%
Non-White	11.8%	28.1%	28.8%	20.1%	23%

*Grade Adjusted

Helmet and Seatbelt Use

Health Objectives for the Year 2010: *Reduce the incidence and severity of unintentional and intentional injuries.*

Public Health Discussion

Motor vehicle crashes remain a major public health problem and are the leading cause of death for Americans aged 1-24. The cost to society exceed $150 billion annually.[1]

Teenagers experience a disproportionately high incidence of crashes and crash deaths. Teenagers accounted for 10 percent of the U.S. population in 1996 and 15 percent of the motor vehicle deaths. The risk of crash involvement per mile among drivers 16 to 19 years old is 4 times greater than other drivers. The risk is greater at ages 16 and 17.[1]

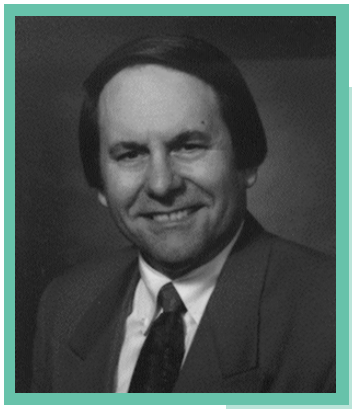
On January 1, 1993, Nebraska legislated mandatory seat belt use. The enactment of the law, increased enforcement and expanded public education efforts have resulted in a 66.9% seat belt use among Lancaster County drivers in 1999.[3]

Among children aged 1-14, crash injuries are the leading cause of death. The use of age-appropriate restraint systems can reduce this problem. All States have child restraint laws, thus more children now ride restrained.

Motorcycles are less stable than cars, and they have high performance capabilities. For these and other reasons, motorcycles are more likely than cars to be in crashes. When motorcycles crash, their riders lack the protection of an enclosed vehicle, so they are more likely to be injured or killed. Per mile traveled, the number of deaths on motorcycles is about 16 times the number in cars. Serious head injury is common among fatally injured motorcyclists, thus helmet use is important. Helmets are 29% effective in preventing motorcycle deaths and 67% effective in preventing brain injuries.[1]

Head injuries are the most serious type of injuries sustained by pedalcyclists of all ages. In 1996, 33% of pedalcyclists deaths were riders aged 16 and younger. More bicyclists were killed in urban areas than in rural areas (65% versus 35%). Bicycle helmets are a proven intervention that minimize the risk of head injury. Helmets are important for riders of all ages, especially because older bicyclists represent two-thirds of bicycle deaths.[1]

Compared to younger children, adolescents have a much higher mortality rate. Adolescents are much more likely to die from injuries sustained from motor vehicle traffic crashes. Injuries from motor vehicle crashes accounted for 36 percent of deaths among youth ages 15-19 during 1996. Motor vehicle injuries were the leading cause of death among adolescents for each year between 1980 and 1996, but the death rate declined by one-third during the time period. Little change, however, has occurred since 1992.[2]



"If we could get all teens to wear seatbelts, we would save 30 lives and over 1,000 serious injuries annually in our state."

Fred Zwonechek, Administrator
Nebraska Office of Highway Safety

Motor vehicle deaths are more common among male that among female adolescents. In 1996, the motor vehicle traffic death rate for males was nearly twice the rate for females.[2]

As of December 1997, 49 States have safety belt laws. Nebraska is one of over 30 States that has a secondary enforcement law for seat belt use. States that have upgraded their secondary enforcement law to a primary enforcement law have seen their State's safety belt use increase 10-15 % immediately following the passage of the law.

Safety belts, when used, are the single most effective means of occupants to reduce the risk of death and serious injury in a motor vehicle crash. The national use rate (as of December 1996) is 68%, according to the National Highway Traffic Safety Authority (NHTSA). Lap and shoulder belts are 45% effective in reducing deaths and 50% effective in preventing moderate to critical injuries to passengers. In 1996, if all passenger vehicle occupants had buckled up, an estimated 20,169 lives could have been saved.

Parental Roles and Responsibilities:

Role modeling safe and cooperative behaviors are essential to reduce deaths and injuries among teenagers and children resulting from motor vehicles, motorcycles and bicycles. These include, among others:

1. properly installed child safety seats
2. safe motor vehicle operation (driving habits that obey laws)
3. use of child safety restraints
4. properly fastened seat belts
5. use of motorcycle helmets
6. equipping young drivers through proper education and experience
7. monitor young driver's skills with enforced rules for violation
8. use bicycle helmets when driving bicycles on the street
9. keep open communications with your child about activities and interests.

Community Roles and Responsibilities:

Lincoln and Lancaster County residents can make a difference in reducing the injuries and deaths from motor vehicle, motorcycle and bicycle crashes by:

1. Supporting efforts to adopt a primary safety belt law
2. Initiating and supporting child safety seat checks, child safety seat loaner programs and community distribution programs to limited income families.
3. Creating more opportunities for youth recreation during after-school and weekend hours.
4. Enhancing existing bicycle safety courses and more strongly encouraging bicycle helmet use at community events.
5. Initiating and supporting no cost or low cost helmet distribution programs to those unable to purchase helmets.

Policy Makers' Roles and Responsibilities:

Public Health Infrastructure: Nearly thirty organizations and agencies have united efforts to expand public awareness to the needless injury and death of teenagers and children due to motor vehicle, motorcycle and bicycle crashes.

The Lincoln-Lancaster County Health Department, through leadership to a SAFE KIDS/SAFE COMMUNITIES Coalition, provides bicycle education and a low cost bicycle helmet distribution program. Additionally, child safety seat checks and a child safety seat loaner program are available. Through efforts of traffic safety staff, a youth driver training program for young drivers and a guardian are available. Encouragement of public and private collaborations can address issues contributing to the aforementioned injuries.

References:

1. U.S. Department of Health and Human Services. "Healthy People 2010 Objectives: Draft for Public Health Comment." September 1998

2. Federal Interagency Forum on Child and Family Statistics. "America's Children: Key National Indicators of Well-Being". 1999.

3. Lincoln-Lancaster County Health Department. "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000.

Sexual Activity

The Youth Risk Behavior Survey includes questions on past sexual intercourse, number of sexual partners, age at first intercourse, alcohol and drug use, contraceptive use, history of pregnancy, and HIV/AIDS education.

Overall Trends

Reported levels of sexual activity among Lancaster County teens declined from 1991 to 1999. There was a steady decline in general indicators of sexual activity over the five biannual survey years (Figure 1).

In 1999, 36.2% of teens reported ever having had sexual intercourse. This represents a substantial decline over the period since 1991, when 51.6% of teens reported having had sex.

The percentage of teens who reported having had more than one sexual partner or sex in the past three months also decreased from 1991 to 1999. In 1999, 19.2% reported having had more than one sexual partner and 23.3% reported sex within the past three months.

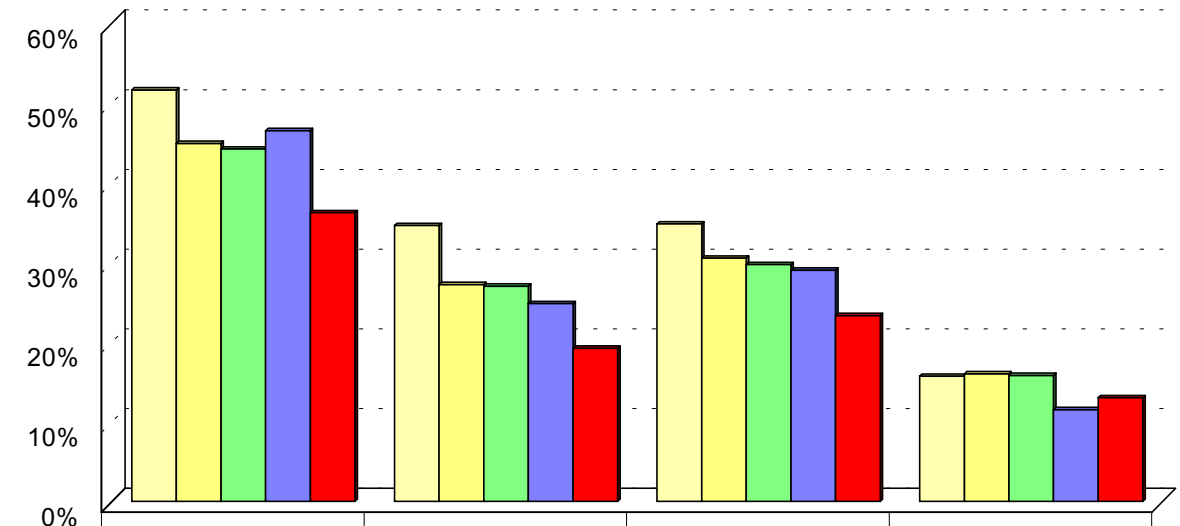
The percentage of teens reporting that they first had sex at age 12 or younger did not decline significantly overall during the period.

These selected declines in reported sexual activity, 1991-1999, occurred not only in the entire YRBS sample but also among respondents of different grades, among males as well as females, and white and non-white teens. See the following pages for detail.

The local decline was also consistent with reports of declining teen sexual activity elsewhere. YRBS results for Nebraska (1993-1997)[1] and the U.S. (1991-1999)[2] indicated declines in these sexual behaviors.

1 Tables published by Buffalo Beach Company, Lincoln, NE
2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Sexual Activity
High School Students*



	Ever Had Intercourse	Had More Than One Sex Partner	Had Sex in Past 3 Months	First Sex at Age 12 or Younger**
1991	51.6%	34.6%	34.8%	15.7%
1993	44.9%	27.2%	30.5%	16%
1995	44.2%	27%	29.7%	15.8%
1997	46.5%	24.8%	29%	11.5%
1999	36.2%	19.2%	23.3%	13%

* Grade-adjusted

** Students Who Reported Having Had Sex

Sexual Activity

Sexually Active Students, Substance Use, and Contraception

In addition to declines in reported sexual activity among all respondents, there were reductions in reported sexual activity *among teens who have had sex.* Alcohol and drug use continue to be a major influence on youth sexual activity in Lancaster County. Reported contraceptive use showed little improvement from 1991 to 1999 (Figs. 2 - 4).

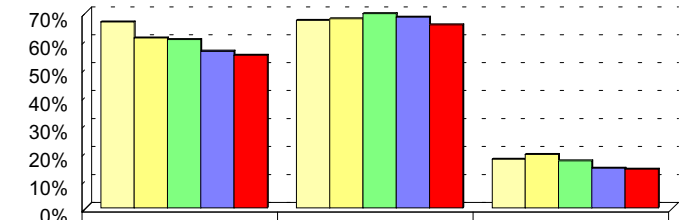
The percentage of teens (who have had sex) reporting that they have had more than one sex partner decreased from 66.5% in 1991 to 54.6% in 1999 **(Fig. 2)**. There was little change, however, in the percentage reporting sex within the past three months or more than one sexual partner within the past three months.

Unlike indicators of sexual activity cited thus far, reports of alcohol and drug use did not decline over the 1991-1999 period **(Fig. 3)**. The percentage of teens (who have had sex) reporting alcohol and drug use prior to their last sexual encounter was higher in 1999 (28.9%) than it had been over the previous four survey years.

The percentage of teens (who have had sex) reporting use of a condom at last intercourse was higher overall in 1999 (62.3%) than in 1991 (54.9%) **(Fig. 4)**. However, the improvement was not statistically significant and no gains were evident since 1993.

Figure 2: Sexual Activity*

High School Students Who Reported Having Had Sex

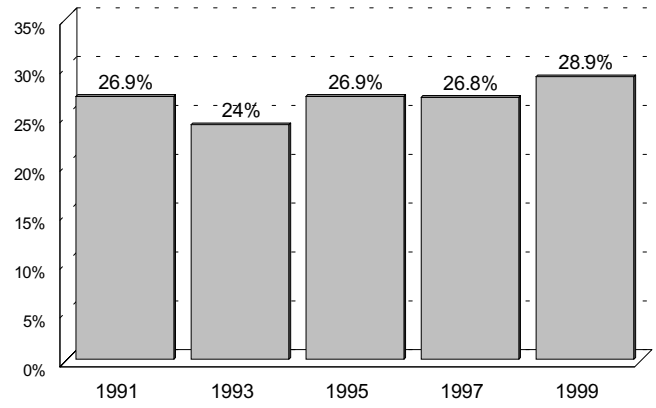


	Had > 1 Sex Partner	Had Sex in Past 3 Mos.	> 1 Partner Past 3 Mos.
1991	66.5%	67%	17.4%
1993	60.8%	67.6%	19.1%
1995	60.2%	69.5%	16.8%
1997	56%	68.2%	14.2%
1999	54.6%	65.4%	13.8%

* Grade-adjusted

Figure 3: Alcohol or Drug Use Prior to Last Sexual Intercourse*

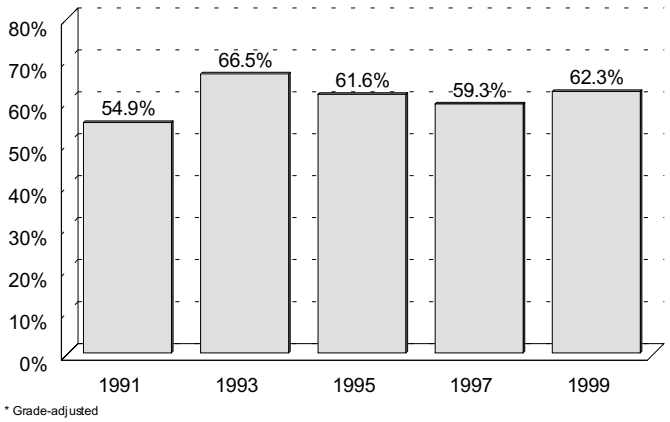
High School Students Who Reported Having Had Sex



* Grade-adjusted

Figure 4: Condom Use During Last Sexual Intercourse*

High School Students Who Reported Having Had Sex



* Grade-adjusted

Sexual Activity

Contraception, Pregnancy History, and HIV/AIDS Education

During the 1990s, the proportion of teens reporting that they did not use any form of birth control remained at about one-fifth of sexually active students. Reported history of pregnancy among sexually active teens did not change significantly. Reports of having received HIV/AIDS education in school increased.

In addition to asking specifically about condom usage, the YRBS inquired about pregnancy prevention methods used during last sexual intercourse **(Fig. 5)**.

Condoms and the pill have been the most commonly reported methods of birth control. In 1999, over one-fifth of teens who reported having had sex indicated that they depended on withdrawal or used no method of birth control during their last sexual intercourse.

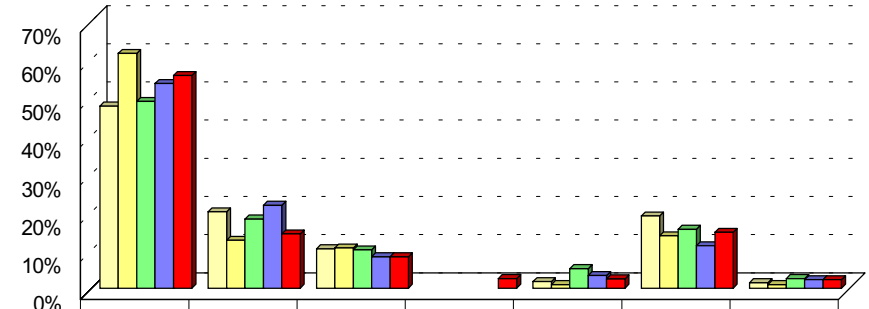
Reported history of pregnancy among sexually active teens did not change significantly from 1991 to 1999 **(Fig 6).**

Among 1999 YRBS respondents who reported having had sex, 8.8% reported having been pregnant or gotten someone pregnant.

Reported HIV/AIDS education in the schools increased somewhat over the 1991-1999 period **(Fig 7).** In 1999, 89.4% of teens reported that they had been taught about AIDS/HIV in their school. This is lower than the 95.6% of teens who reported receiving this education in 1997 but is still higher than percentages reported in previous years, particularly in 1991 (80.1%).

Figure 5: Contraception Method Used During Last Sexual Intercourse*

High School Students Who Reported Having Had Sex



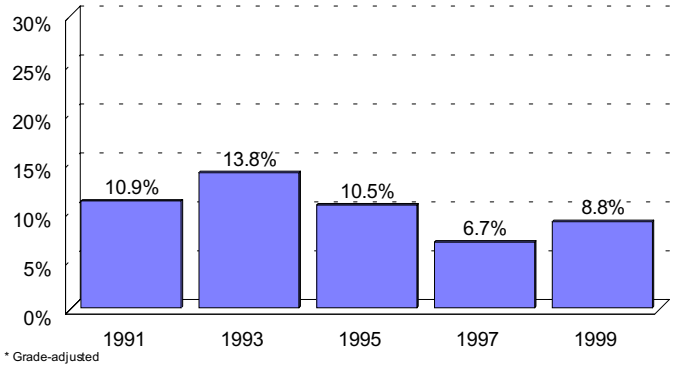
	Condom	Pill	With-drawal	Depo-Provera**	Other	No Method	Not Sure
1991	47.7%	20%	10.3%		1.7%	18.9%	1.4%
1993	61.5%	12.5%	10.5%		0.9%	13.7%	0.9%
1995	48.9%	18.1%	10%		5.1%	15.4%	2.5%
1997	53.6%	21.7%	8.2%		3.3%	11.1%	2.2%
1999	55.7%	14.2%	8.2%	2.5%	2.4%	14.6%	2.2%

* Grade-adjusted

** New response option in 1999

Figure 6: Have Been Pregnant or Gotten Someone Pregnant*

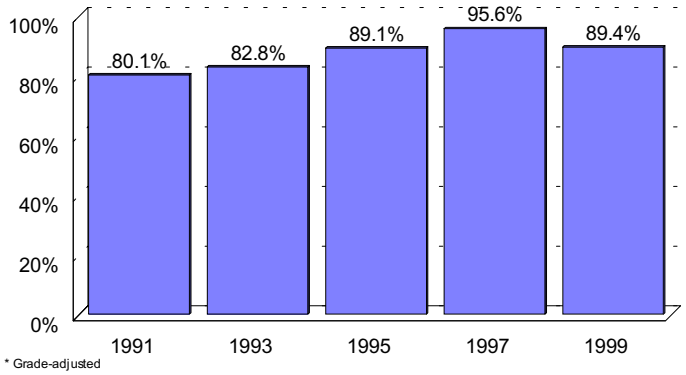
High School Students Who Reported Having Had Sex



* Grade-adjusted

Figure 7: Had AIDS/HIV Education in School

High School Students*



* Grade-adjusted

Sexual Activity

Differences by Gender

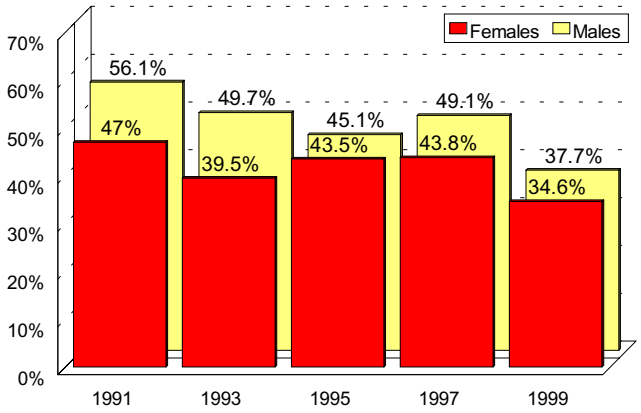
During the 1990s, male teens tended to report more sexual activity than did female teens. From 1991 to 1999, reported sexual activity declined for both sexes, and gender differences decreased. Males and females were similarly likely to report alcohol or drug use prior to sex, and condom use.

Males were more likely than females to report having ever had sex **(Fig. 8)** and having had more than one sexual partner **(Fig. 9)**. On both of these indicators, the difference between males and females decreased over the 1991-1999 period and in 1999 were no longer statistically significant.

Although males tended to report higher rates of condom use during the early 1990s, this gender gap narrowed such that, in 1997 and 1999, males and females were equally likely to report that they used a condom during their last sexual intercourse **(Fig. 10)**.

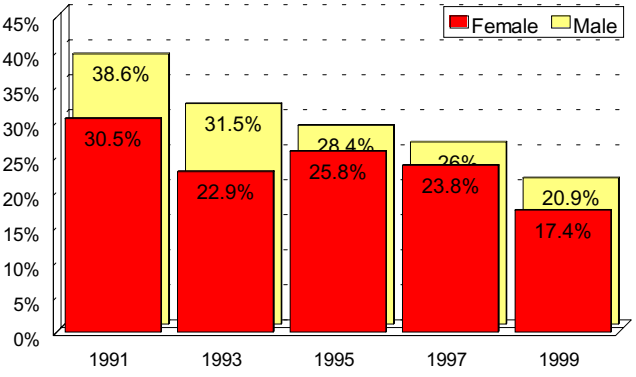
Males and females have been similarly likely to report that they used alcohol or drugs prior to their last sexual intercourse **(Fig. 11)**. There was no statistically significant change in this indicator from 1991 to 1999 among either males or females.

Figure 8: Sexual Activity*
High School Students Who Have Ever Had Sexual Intercourse



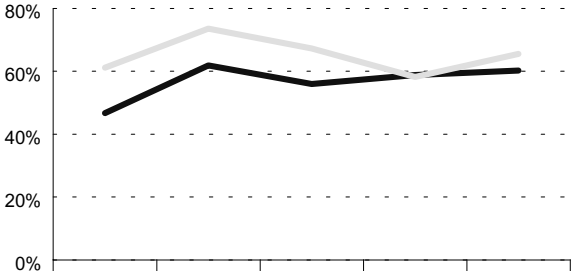
* Grade-adjusted

Figure 9: Have Had More Than One Sex Partner*
High School Students



* Grade-adjusted

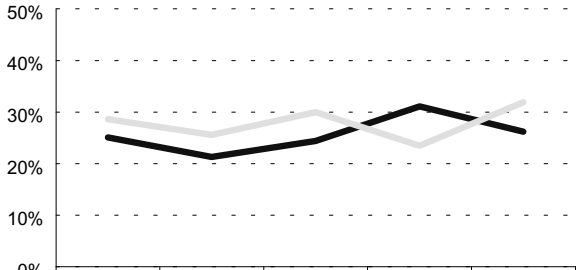
Figure 10: Used Condom at Last Sexual Intercourse*
High School Students Who Reported Having Had Sex



	1991	1993	1995	1997	1999
Males	61.1%	73.5%	67.2%	58.2%	65.5%
Females	46.7%	61.8%	55.9%	58.8%	60.2%

* Grade-adjusted

Figure 11: Alcohol or Drug Use Prior to Last Sexual Intercourse*
High School Students Who Reported Having Had Sex



	1991	1993	1995	1997	1999
Males	28.6%	25.6%	30%	23.5%	31.9%
Females	25.1%	21.3%	24.4%	31.1%	26.2%

* Grade-adjusted

Sexual Activity

Differences by Grade

Teens in older grades were more likely than teens in younger grades to report sexual activity. However, reported sexual activity declined in all high school grades from 1991 to 1999.

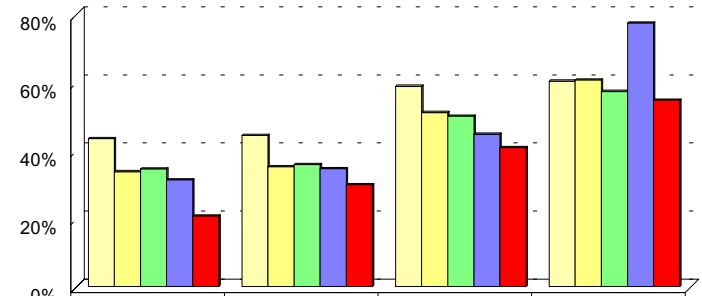
From 1991 to 1999, the percentage of teens reporting they ever had sexual intercourse declined among 9th, 10th, and 11th graders (statistically significant declines) **(Fig. 12)**. The largest decline in reported sexual activity was seen among 9th graders, from 43.4% in 1991 to 20.7% in 1999.

The percentage of teens who reported having had more than one sexual partner during their lifetimes also decreased in three of the four grades from 1991 to 1999 **(Fig. 13)**. The steadiest downward trend was seen among 9th graders. In 1991, 27.3% of 9th graders reported having had more than one sexual partner during their lifetimes. By 1999 this percentage declined to 10.8%.

The percentage of teens who reported recent sexual activity (within the previous 3 months) increases sharply with grade level **(Fig. 14)**. Reports of recent sexual activity declined among 9th and 11th graders (statistically significant declines). Although 9th grade teens had the steadiest downward trend, the largest decline occurred among 11th graders, from 39.7% in 1991 to 24.5% in 1999.

Figure 12: Sexual Activity By Grade

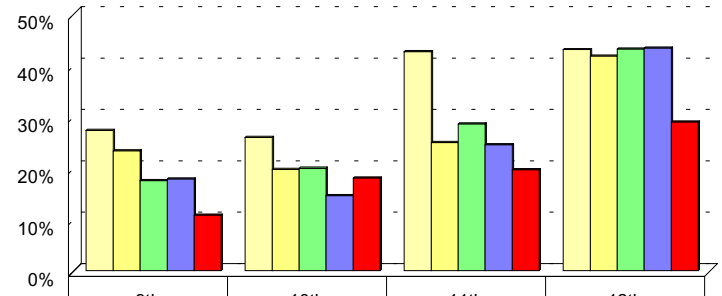
High School Students Who Reported Having Had Sex



	9th	10th	11th	12th
1991	43.4%	44.4%	58.8%	60.3%
1993	33.7%	35.2%	51.1%	60.6%
1995	34.5%	35.8%	50%	57.3%
1997	31.3%	34.6%	44.7%	77.4%
1999	20.7%	29.9%	40.8%	54.7%

Figure 13: Sexual Activity By Grade

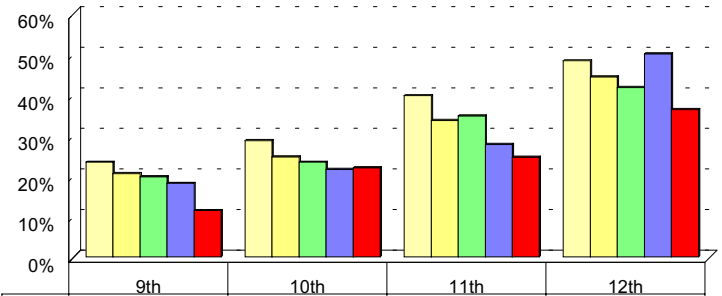
High School Students Who Reported Having Had More Than One Sexual Partner During Their Lifetime



	9th	10th	11th	12th
1991	27.3%	25.9%	42.6%	43%
1993	23.3%	19.7%	24.9%	41.7%
1995	17.5%	19.9%	28.5%	43.1%
1997	17.8%	14.6%	24.5%	43.3%
1999	10.8%	18%	19.6%	28.9%

Figure 14: Sexual Activity By Grade

High School Students Who Reported Having Had Sex in the Past 3 Months



	9th	10th	11th	12th
1991	23.3%	28.6%	39.7%	48.3%
1993	20.5%	24.6%	33.6%	44.3%
1995	19.7%	23.3%	34.7%	41.7%
1997	18.1%	21.5%	27.7%	50%
1999	11.4%	21.9%	24.5%	36.3%

Sexual Activity

Differences by Race

There was little difference between white and non-white teens in indicators of sexual activity. The overall declines in reported sexual activity among all YRBS respondents were also apparent among both white and non-white teens.

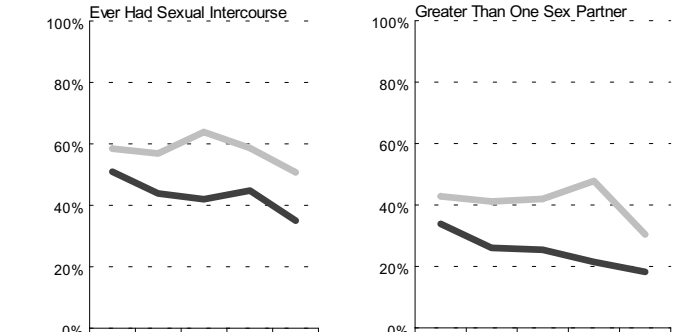
YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

There were few noticeable differences between white and non-white teens in indicators of sexual activity. Statistically significant differences were found only in the percentage of teens reporting that they have had more than one sexual partner. Non-white teens were more likely to report this behavior **(Fig. 15)**.

Overall declines in sexual activity indicators among all YRBS respondents **(Fig. 1)** were also visually apparent among both white and non-white teens. Examples include reports of having ever had sex, have had more than one sexual partner, and being currently sexually active **(Figs. 15 and 16)**. However, only declines among white teens were statistically significant, probably due to the sample size for non-white teens.

As with respondents as a whole **(Fig. 4)**, reports of condom use at last sexual intercourse did not significantly increase for white or non-white teens **(Fig. 17)**.

Figure 15: Sexual Activity*
High School Students

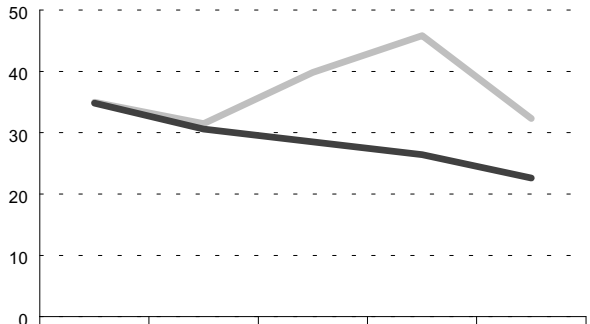


	1991	1993	1995	1997	1999
White	51%	43.9%	42%	44.8%	35%
Non-White	58.5%	56.9%	63.9%	58.7%	50.8%

	1991	1993	1995	1997	1999
White	33.8%	26%	25.4%	21.4%	18.2%
Non-White	42.8%	41.1%	42%	47.8%	30.4%

*Grade Adjusted

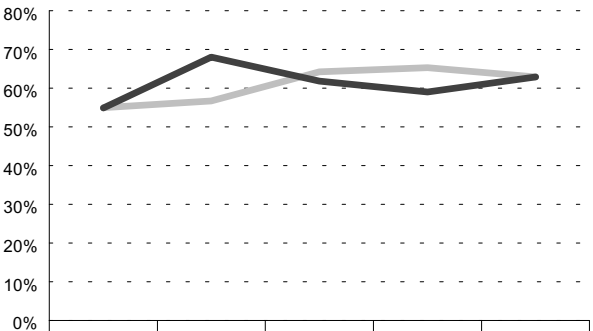
Figure 16: Currently Sexually Active*
High School Students, Reported Having Had Sex in the Past Three Months



	1991	1993	1995	1997	1999
White	34.8	30.6	28.5	26.4	22.6
Non-White	35	31.5	39.8	45.8	32.3

*Grade Adjusted

Figure 17: Condom Use at Last Sexual Intercourse*
High School Students Reporting That They Have Ever Had Sex



	1991	1993	1995	1997	1999
White	54.9%	68%	61.8%	59%	62.9%
Non-White	55%	56.7%	64.2%	65.3%	62.9%

*Grade Adjusted

Sexual Activity

Health Objectives for the Year 2010: *Build a community in which healthy sexual relationships, free of infection as well as coercion and unintended pregnancy, are the norm.*

Public Health Discussion

While statistics show positive trends in teen sexual activities in Lincoln-Lancaster County, teenage sexuality remains a primary public health concern. Sexual activity consistently shows the highest rates of connectivity to other youth risk behaviors.

Effectively addressing teenage sexuality within the community continues to be controversial. Personal opinions of some adults limit access of factual information from individuals, advocates and agencies capable of providing education in preventing unplanned pregnancies among teenage females to high risk youth.

All adolescents need education that teaches them the interpersonal skills they will need to withstand pressure to have sex until they are ready and that includes up-to-date information about methods to prevent pregnancy and STD's. More important, they need to receive this education before they become sexually active.

Factors contributing to the decrease of 9th to 12 grade students reporting sexual intercourse during the past 12 months are most likely multiple. Consequences of teen sexual activity (pregnancy, sexually transmitted diseases, HIV) may be better understood by informed and educated students. Abstinence education has increased. More agencies and organizations are collaborating to address sexual activity. School Health Education has helped schools interact with community health services. More parents may be talking to their youth about risky behaviors. About the survey itself, both schools and students were given opportunity to be included or excluded from the study. High risk youth may not have been included.

Studies show girls born to teenage mothers are up to 83% more likely to become teenage mothers themselves. Teenage sons born to adolescent mothers have an incarceration rate approximately 2.7 times that of teenagers born to more mature mothers. The study also notes that 70% of teenage mothers end up dropping out of school, and are twice as likely to be dependent upon social service assistance.

"Adult family members must find teachable moments in everyday activities to openly communicate thoughts on responsible personal decision-making with their children."

Julie Anderson, Associate Director
Young Family's Program
Lincoln Medical Education Foundation

Policy makers, communities, families and individuals can take steps to prevent the early onset of teen sexual activity and the personal and social cost of teen pregnancy and sexually transmitted diseases.

Education and knowledge, however, are not enough on their own. Adolescents need strong reinforcement from parents, schools, media, and other sources about the importance of making conscious, informed, responsible decisions regarding whether or not to have intercourse.

CHARACTER COUNTS!℠

Parental Roles and Responsibilities:

Many parents are uncomfortable in discussing sexuality. According to a 1997 survey, most parents of 8-12 year olds today do not talk enough about such important topics as relationships and becoming sexually active, violence, AIDS, alcohol and drugs.

Parents are encouraged to talk to their children about sexuality and the realities of pregnancy and parenting. If a parent doesn't provide answers for a child's questions, someone else will, and others may not give the type of responses parents want their child to hear. In return, parents must be willing to listen to what their child is saying to them.

A 1997 national survey by the Kaiser Family Foundation and Children Now reported "when it comes to key issues such as handling pressure to have sex, becoming sexually active, and preventing pregnancy, most parents of 8-12 year olds report they have not yet had these conversations with their children."[1]

Youth who are sexually active need to know the necessity of consistent, correct condom use to prevent themselves and their partners against STD's and HIV and about the use of effective contraception to prevent unintended pregnancy. Teenage pregnancies continue to have a profound negative impact on this and future generations. Social and economic effects of teenage pregnancies and parenting challenge not only the individual but also the social service system.

Keep an open mind toward sex education. Select individuals and groups can become road blocks for those most in need by imposing personal value judgements. Negative publicity limits recruiting both human and financial resources, often necessary to reach these select audiences.

Adults can encourage adolescent sexual health by providing accurate information about sexuality, fostering responsible decision making skills, offering support and guidance in exploring and affirming personal values, and modeling healthy sexual attitudes and behaviors.

Parents should seek help from agencies and groups where the topic is openly discussed, and where parents feel comfortable with the approach (churches, schools, mental health, hospitals, and physician offices).

Community Roles and Repsonsibilities:

Communities can have a vital role in the sexual activity of children and youth. Youth who perceive that the community values and sees them as a resource have higher self-esteem. Community begins with neighborhood and school boundaries, where each takes responsibility for monitoring young people's behavior, and provides role modeling of responsible behaviors.

This is a plea for family, school, business and community interaction with youth. A young person's intentions are not to participate in risky behaviors. However, as youth mature, natural erosion of their personal commitments occur. Many nurturing activities are actively in place within the Lincoln-Lancaster County community. By working together, the community can strengthen our youth, one child at a time.

Research suggests that concentrating on four specific prevention strategies with youth at the 7th and 8th grade levels will decrease young people's chances of being involved in risky behaviors. These strategies include:

1. Developing the belief that risky behaviors are not normal or acceptable by the adolescent's peer group,
2. Cultivating the belief that risky behaviors do not fit with the adolescent's personal ideals and future aspirations,
3. Creating voluntary, personal and public commitments to not participate in risky behaviors, and
4. Strengthening relationships between the

adolescents and positive friendship groups and social institutions.

The ALL STARS program, a nationally awarded program to prevent alcohol and drug use, violence, and premature sexual activity among youth ages 10 to 15 is an example of a school classroom or community-based effort that implements these 4 strategies.

Search Institute in Minneapolis, MN suggests communities adopt a "40 assets" philosophy that values children. Search researchers identified a set of 40 building blocks, called assets, that all young people need for developing healthy lifestyles, caring attitudes and responsible behaviors. The program challenges communities to tap the caring, creative energy of families, neighborhoods, schools, congregations, workplace, youth organizations and groups of people. Thus begins the work of transforming communities into a united, healthy environment committed to youth. The more of these assets a young person has, the less likely he or she is to engage in high-risk behaviors such as drinking, violence or early sexual activity. Likewise, young people who experience a significant number of assets are more likely to grow up to be caring, competent and responsible.

Assets are identified as both internal and external. Internal assets include a youth's commitment to learning, positive values, social competences and positive identity. External assets are the nurturing roles of family, businesses and education that give a youth support, empowerment, boundaries and expectations, and constructive use of time.

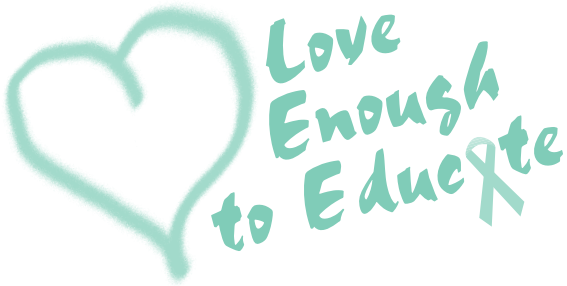
Public education campaigns by groups such as the Teen Pregnancy Prevention Coalition have been effective in raising awareness to the problem. Programs like Unequal Partners, Abstinence Education, and Male Responsibility are offered for expanding one's ability to communicate safe sexual lifestyle messages to youth.

Collaborative steps by policy makers, communities, and individuals in building positive self concepts of youth can help prevent early onset of teen sexual activity and the associated ramifications of teen pregnancy, and STD's (including HIV/AIDS).

Programs that focus on male sexual responsibility and respect for female partners can be effective in reducing unwanted teen pregnancies. Inaccurate, incomplete or no sexual education is commonplace among many boys. Programs that remove the sexual hype portrayed by media, peer pressure and street talk can improve the self concept of boys and result in healthy lifestyle behaviors. A 1999 Study of 158 eighth grade males who participated in a male responsibility training program called "Wise Guys," found that students who participated in the program delayed initiation of sexual intercourse at a much greater rate than nonparticipants. While 3% of participants reported sexual activity in the past year, 17% of the non-participating boys became sexually active during the past year.

Support age appropriate services/programs for youth, such as Safe Nights, Safe Communities, Character Counts, Teammates, All STARS, and 40 Assets.

Encourage adolescents to avoid high risk behaviors by providing healthy alternative opportunities for personal growth and development. Adults can include youth in their own volunteer activities to bring connectedness to youth and community.



Policy Makers' Roles and Responsibilities:

Currently, Nebraska has no state laws and regulations requiring sexuality education, requiring HIV/STD education or requiring contraception education.

Thirty three states and the District of Columbia require schools to teach HIV/STD prevention education. Currently, 19 states and the District of Columbia require schools to teach sexuality education. Only 13 states and the District of Columbia require classes that offer sex education to provide students with information on contraception. Parents have the right to excuse their child from attending sexuality and HIV/STD prevention classes in 33 states. Twenty six require a written request from parent or guardian to be excused. Four states require written parental permission before a student can attend a class on sexuality.[1]

A recent study conducted by the National Campaign to Prevent Teen Pregnancy found that 95% of Americans believe teens should be encouraged to practice abstinence. In addition, another study conducted by Advocates for Youth and Sexuality Information and Education Council of the United States found that more than 80% of adults surveyed believe young people should be given information on contraception, HIV and STD's, as well as abstinence.[2]

One approach states have taken to reduce teenage pregnancy and the spread of diseases is to require schools to offer comprehensive sexuality courses, which teach students about abstinence as well as pregnancy, disease prevention and contraceptives. The Center for Disease Control and Prevention suggests that courses be age-appropriate and all information be scientifically accurate.

Requiring age appropriate comprehensive sexuality education that emphasizes abstinence and provides information on reproductive health, disease and contraceptives can encourage the postponement of sexual activity by helping students better understand sex and its consequences. Students who then choose to become sexually active, advocates say, should have the necessary information to make healthy, responsible decisions, choices beneficial to their health and their goals.

References:

1. Lincoln-Lancaster County Health Department. "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000.

2. U.S. Department of Health and Human Services, Office of Public Health Science. "Healthy People 2010 Objectives: Draft for Public Health Comment." September 1998

Physical Activity

The Youth Risk Behavior Survey includes questions on intensity, frequency, and duration of exercise; strength training; physical education class; sporting teams; television viewing; and injury due to exercise or sports.

Overall Trends

Reported physical activity among Lancaster County teens increased over the 1990s in the areas of strength training, team sports and moderate physical activity; vigorous physical activity changed little (Figure 1).

In 1999, one-third (67.6%) of teens reported engaging in vigorous physical activity (20 or more minutes of exercise that causes one to sweat or breath hard) on three or more of the previous seven days. This represents no improvement from 1991 (67.9%).

However, there were increases during the 1990s in two other important measures. Reports of engaging in moderate physical activity (30 or more minutes that do not cause one to sweat or breath hard) on five or more of the previous seven days increased overall from 1993 (19.3%) to 1999 (28.1%). Also, the percentage of teens who reported exercising on three or more of the of the previous seven days to strengthen or tone muscles increased from 48.6% (1991) to 58.4% (1999).

From 1991 to 1999, there was little change in the percentage of teens who reported that they were currently enrolled in a school physical education class.

The percentage of teens reporting that they participated on a sports team during the past 12 months increased overall from 1991 to 1995 but not since 1993.

These trends in reported physical activity held true among respondents of different grades, males as well as females, and white and non-white teens. See the following pages for detail.

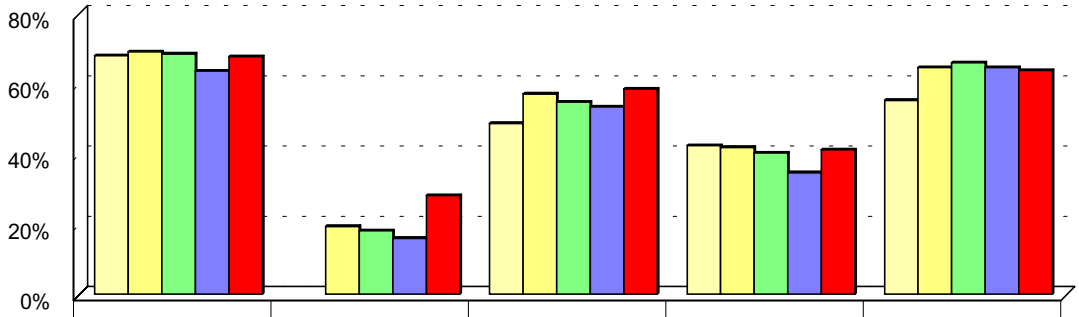
Lancaster County trends (1991-1999) were quite similar to U.S. trends (1993-1999)[2] on these physical activity indicators. However, increasing reports of moderate exercise and strengthening exercise in Lancaster County and the U.S. contrast with level trends in Nebraska (1993-1997)[1].

1 Tables published by Buffalo Beach Company, Lincoln, NE

2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Physical Activity*

High School Students



	Vigorous Physical Activity †	Moderate Physical Activity ††	Strengthening Exercises ‡	PE Class at School ‡‡	Played on Sports Teams ‡‡‡
1991	67.9%		48.6%	42.3%	55.2%
1993	69%	19.3%	57%	41.8%	64.5%
1995	68.4%	18.1%	54.7%	40.2%	65.9%
1997	63.5%	15.9%	53.3%	34.6%	64.5%
1999	67.6%	28.1%	58.4%	41.1%	63.7%

† physical activity that made you sweat and breathe hard for at least 20 minutes, on 3 or more of the previous 7 days
†† physical activity that did not make you sweat or breathe hard, for at least 30 minutes, on 5 or more of the previous 7 days
‡ strenghened or toned muscles, on 3 or more of the previous 7 days
‡‡ have physical education class on 1 or more days in average week at school
‡‡‡ played on 1 or more sports teams in the past 12 months, either run by school or community groups

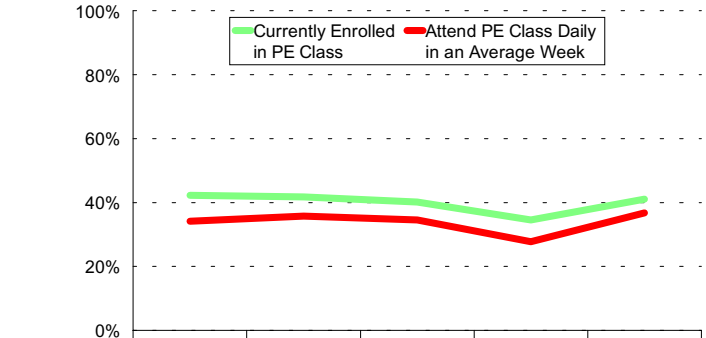
*Grade Adjusted

Physical Education Class, Sports/Exercise Injuries, and T.V. Viewing

Rates of reported teen participation in school physical education did not change during the 1990s.

From 1991 to 1999, as previously shown **(Fig. 1)**, two in five teens (41.1% in 1999) reported that they were currently enrolled in a physical education class in school. A slightly smaller percentage (36.8% in 1999) reported attending physical education class daily **(Fig. 2)**. Neither changed notably during the 1990s.

Figure 2: Physical Education Class (at School)
High School Students

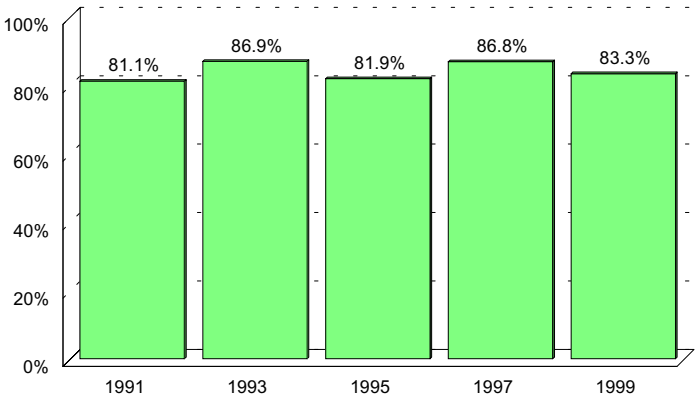


	1991	1993	1995	1997	1999
Currently Enrolled in PE Class	42.3%	41.8%	40.2%	34.6%	41.1%
Attend PE Class Daily in an Average Week	34.2%	35.7%	34.6%	27.8%	36.8%

*Grade Adjusted

Among teens who were enrolled in physical education class at school, the great majority (83.3% in 1999) reported that they actually exercise or play sports more than 20 minutes during an average physical education class. This percentage did not increase substantially during the 1990s **(Fig. 3)**.

Figure 3: Exercise 21 or More Minutes In an Average PE Class*
High School Students Currently Enrolled in School PE Class



*Grade Adjusted

The 1999 survey included two new questions on television viewing and injuries due to physical activity.

Responses indicated that:

- 29.1% of teens reported watching three or more hours of television on an average school day.
- 40.6% of teens reported that during the past 12 months they were injured while exercising, playing sports, or being physically active and as a result had to be treated by a doctor or a nurse.

Physical Activity

Differences by Gender

A clear gender gap exists in the area of teen physical activity. During the 1990s, male teens continued to report more vigorous, moderate, and strengthening physical activity than female teens, and were more likely to report participation on a sporting team or in a physical education class. Increases in moderate physical activity, strengthening exercise, and team participation were reported by females (Figs. 4 - 6).

In 1999, male teens were 1.2 times more likely than female teens to report engaging in vigorous physical activity (20 or more minutes of exercise that causes one to sweat or breathe hard) on three or more of the previous seven days **(Fig. 4)**. The gap between males and females has not changed overall since 1991, nor was there an increase or decrease for either sex.

Among both males and females, an increasing percentage of teens from 1993 to 1999 reported that they engaged in moderate physical activity (30 or more minutes of exercise that does not cause one to sweat or breathe hard) on five or more of the previous seven days **(Fig. 4)**.

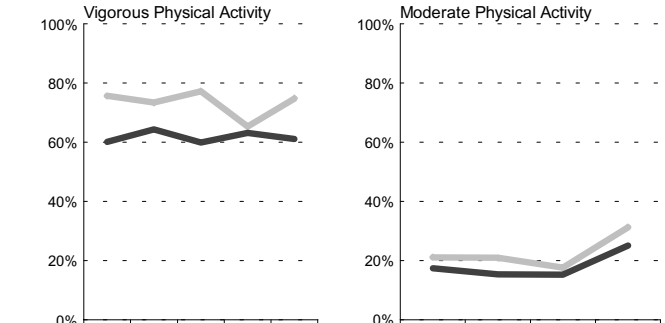
An increasing percentage (1991-1999) of both male and female teens also reported that they engaged in exercise to strengthen or tone their muscles on three or more of the previous seven days **(Fig. 5)**. With strong increases among females in particular, the gender gap decreased from a 1.5 (1991) to a 1.2 (1999) times greater likelihood of males to report engaging in strengthening exercise.

There was no overall change during the 1990s in reported participation of male and female teens in a physical education class **(Fig. 6)**. In 1999, males more likely (51.0%) than females (32.3%) to report being in a physical education class.

From 1991 to 1993, both male and female teens increasingly reported participation on a sports team (either a school run or community team) during the past 12 months **(Fig. 6)**. Since 1993, however, there has been little improvement. There was no change in the gender gap, with males continuing to report sports team participation at a higher rate (69.9%) than females (57.9%) in 1999.

In 1999, males were more likely (33.9%) than females (24.7%) to report watching three or more hours of television per average school day. Also in 1999, males were more likely (45.0%) than females (35.9%) to report that during the past 12 months they were injured exercising, playing sports, or being physically active, and as a result had to be treated by a doctor or a nurse.

Figure 4: Physical Activity Level*
High School Students

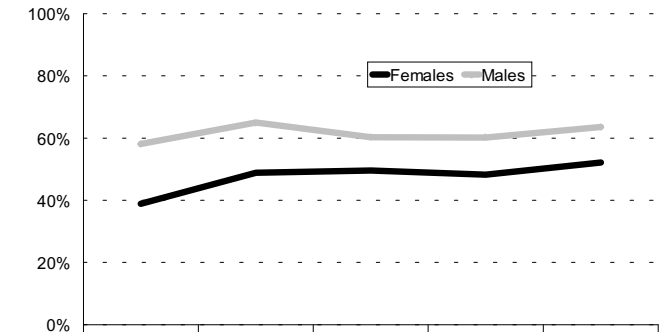


	1991	1993	1995	1997	1999
Females	60.1%	64.4%	59.9%	63.2%	61.1%
Males	75.7%	73.4%	77.2%	65.3%	74.8%

	1993	1995	1997	1999
Females	17.4%	15.3%	15.2%	25.1%
Males	21.1%	21%	17.6%	31.2%

*Grade Adjusted

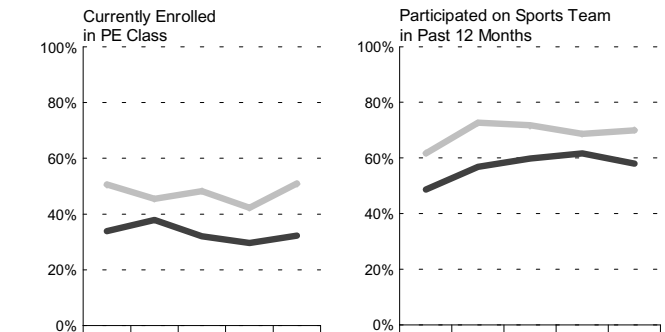
Figure 5: Exercised to Strengthen Muscles*
High School Students



	1991	1993	1995	1997	1999
Females	38.9%	48.9%	49.6%	48.2%	52.1%
Males	58.1%	65%	60.3%	60.2%	63.6%

*Grade Adjusted

Figure 6: Physical Education Class and Sports Teams*
High School Students



	1991	1993	1995	1997	1999
Females	33.8%	37.9%	32%	29.6%	32.3%
Males	50.6%	45.5%	48.2%	42.2%	51%

	1991	1993	1995	1997	1999
Females	48.7%	56.8%	59.8%	61.6%	57.9%
Males	61.6%	72.7%	71.7%	68.6%	69.9%

*Grade Adjusted

Physical Activity

Differences by Grade

Teens in ninth grade have been slightly more likely than teens in older grades to report physical activity by various indicators. Increases in moderate physical activity were reported in older grades (Figs. 7 - 9).

During the 1990s, 9th grade teens appeared more likely than teens in older grades to report vigorous physical activity, but statistically there was no significant difference among grades. In 1999, for example, 77.7% of 9th graders, 66.3% of 10th graders, 63.5% of 11th graders and 62.7% of 12th graders reported engaging in activity that made them sweat or breathe hard for at least 20 minutes, on three or more days in the past week **(Fig. 7)**. Patterns were similar in previous years.

During the 1990s, an increasing percentage of teens in the 10th, 11th, and 12th grades reported moderate physical activity (that did not make them sweat or breathe hard, for 30 minutes or more) on five or more of the previous seven days **(Fig. 8)**.

In addition, all four grades appeared to report increases, 1991-1999, in the percentage who exercised to strengthen or tone muscles on three or more of the previous seven days **(Fig. 9)**. However, only the increase by 10th graders was statistically significant.

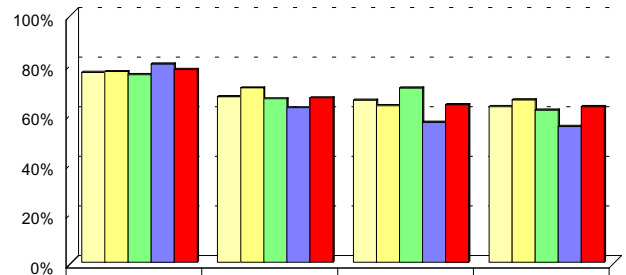
As in the case of teens as a whole **(Fig. 1)**, the percentage of teens reporting current enrollment in physical education class at school did not increase or decrease during the 1990s for any grade (no graph shown here).

Over the 1990s, teens in all four grades increasingly reported that they participated on a sports team (either a school run or community team) during the past 12 months. In 1999 and previous years, 9th graders appeared most likely to report participation in team sports (72.2%), followed by 10th (65.0%), 11th (61.7%), and 12th (55.2%) graders, but there were no statistically significant differences among these rates.

In 1999, the percentage of teens reporting that they watch three or more hours of television per average school day varied from 34.6% among 9th graders to 31.5% among 10th graders, 23.5% among 11th graders and 26.5% among 12th graders.

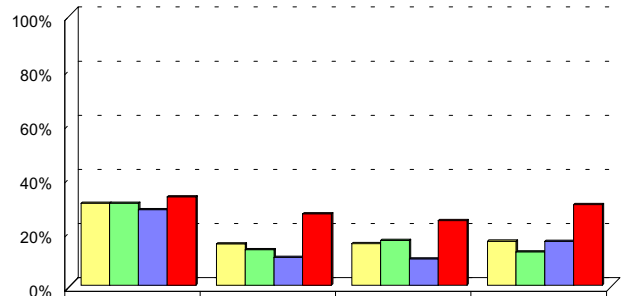
In 1999, nearly half of all 9th grade teens (47.3%) reported that during the past 12 months they were injured exercising, playing sports, or being physically active and had to be treated by a doctor or a nurse. This compares to other grades as follows: 39.5% (12th), 38.4% (10th), and 37.0% (11th).

Figure 7: Vigorous Physical Activity by Grade
High School Students



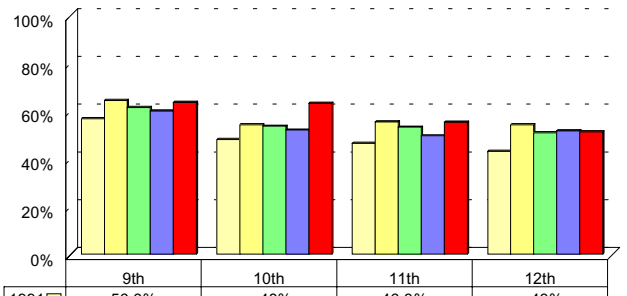
	9th	10th	11th	12th
1991	76.6%	66.7%	65.3%	62.8%
1993	76.9%	70.3%	63.1%	65.5%
1995	75.7%	65.9%	70.2%	61.3%
1997	79.9%	62.3%	56.4%	54.8%
1999	77.7%	66.3%	63.5%	62.7%

Figure 8: Moderate Physical Activity by Grade
High School Students



	9th	10th	11th	12th
1993	30.2%	15.2%	15.3%	16.2%
1995	30.2%	13.1%	16.5%	12.2%
1997	27.8%	10.2%	9.6%	16.1%
1999	32.6%	26.3%	23.8%	29.7%

Figure 9: Strengthening Exercise by Grade
High School Students



	9th	10th	11th	12th
1991	56.6%	48%	46.3%	43%
1993	64.3%	54.1%	55.3%	54.1%
1995	61.3%	53.5%	53.1%	50.8%
1997	59.9%	51.9%	49.5%	51.6%
1999	63.5%	63.1%	55.2%	51.2%

During the 1990s, white and non-white teens reported physical activity at similar rates on various indicators (Figs. 10 - 12).

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not sufficient to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

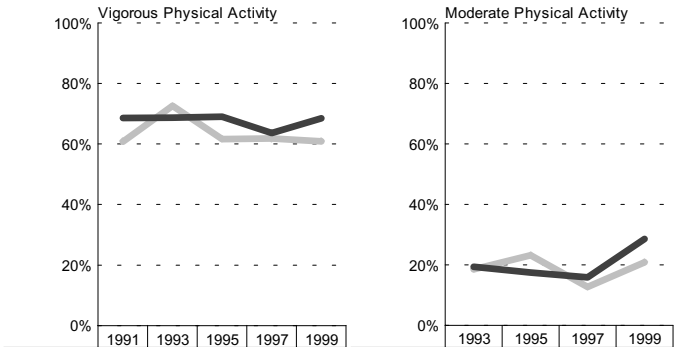
There was little change from 1991 to 1999 in the likelihood of both white and non-white teens to report regular physical activity characterized as:

- vigorous -- 20 or more minutes of exercise that causes one to sweat or breathe hard on three or more of the previous seven days **(Fig. 10)**
- moderate -- 30 or more minutes of exercise that does not cause one to sweat or breathe hard on five or more of the previous seven days **(Fig. 10)**. Both white an non-white teens were noticeably more likely in 1999 than in previous years to report involvement in moderate physical activity.
- strengthening -- exercise to strengthen or tone muscles on three or more of the previous seven days **(Fig. 11)**
- enrollment in school physical education class **(Fig. 12)**
- participation on a sports team in the past 12 months, whether a school run or community team **(Fig. 12)**. White teens in 1999 were more likely (65.1%) than non-white teens (49.8%) to report sports team participation.

In 1999, non-white teens were more likely (48.0%) than white teens (27.0%) to report watching three or more hours of television per average school day.

Statistically, white and non-white teens were similarly likely (41.3% and 36.2%, respectively) to report that they had to be treated by a doctor or a nurse for an injury received while exercising, playing sports, or being physically active.

Figure 10: Physical Activity Level*
High School Students

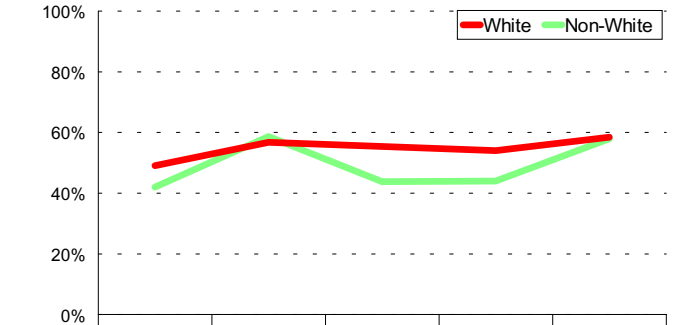


	1991	1993	1995	1997	1999
White	68.6%	68.7%	69%	63.6%	68.5%
Non-White	60.8%	72.6%	61.6%	61.8%	60.9%

	1993	1995	1997	1999
White	19.4%	17.5%	15.9%	28.6%
Non-White	18.5%	23.2%	12.7%	20.8%

*Grade Adjusted

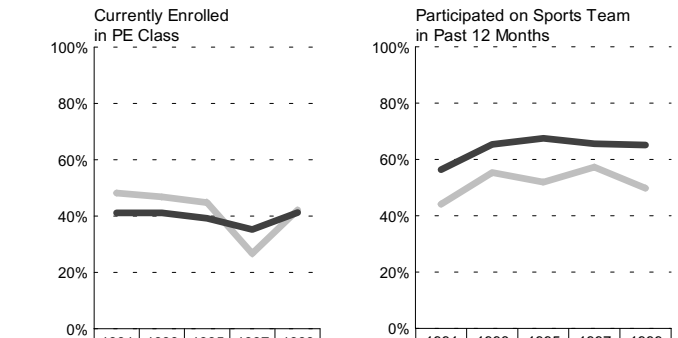
Figure 11: Exercised to Strengthen Muscles*
High School Students



	1991	1993	1995	1997	1999
White	49.1%	56.8%	55.4%	54%	58.4%
Non-White	42%	58.7%	43.8%	44%	57.9%

*Grade Adjusted

Figure 12: Physical Education Class and Sports Teams*
High School Students



	1991	1993	1995	1997	1999
White	41.1%	41.2%	39.2%	35.2%	41.3%
Non-White	48.2%	46.8%	44.8%	26.7%	42.2%

	1991	1993	1995	1997	1999
White	56.3%	65.3%	67.5%	65.5%	65.1%
Non-White	44.1%	55.3%	51.9%	57.3%	49.8%

*Grade Adjusted

Physical Activity

Health Objectives for the Year 2010: *Improve the health, fitness, and quality of life of all Lancaster County residents and reduce their chronic disease risk by promoting regular daily physical activity and optimal nutrition status.*

Public Health Discussion

Adolescents and adults, both male and female benefit from physical activity. For teens, regular physical activity improves strength, builds lean muscle, and decreases body fat. It can build stronger bones to last a lifetime. As one gets older, physical activity helps maintain healthy bones, muscles, and joints, control weight, build lean muscle, and reduce fat. Physical activity prevents or delays the development of high blood pressure and helps reduce blood pressure in some adolescents with hypertension.[1]

"With a foundation of positive values, age appropriate sports and recreational activities provide a lifetime of valuable outcomes."

Barb Bettin, Executive Director
Youth Sports Branch, YMCA

The 1999 National Youth Risk Behavior Survey indicated nearly half of American youths aged 12-21 years are not vigorously active on a regular basis. About 14% of young people reported no recent physical activity. Inactivity is more common among females (14%) than males (7%) and among black females (21%) than white females (12%). Participation in all types of physical activity declines strikingly as age or grade in school increases.

Physical activity need not be strenuous to be beneficial. Moderate amounts of daily physical activity are recommended for people of all ages. This amount can be obtained in longer sessions of moderately intense activities, such as brisk walking for 30 minutes, or in shorter sessions of more intense activities, such as jogging or playing basketball for 15-20 minutes. Greater amounts of physical activity are even more beneficial, up to a point. A moderate amount of physical activity is roughly equivalent to physical activity that uses approximately 150 calories of energy per day, or 1,000 calories per week. Excessive amounts of physical activity can lead to injuries, menstrual abnormalities, and bone weakening. Examples of moderate amounts of activity include: washing and waxing a car, washing windows, playing volleyball, touch football, basketball, gardening, bicycling, dancing, walking, jumping rope, and shoveling snow.[2]

Parental Roles and Responsibilities:

Parents can help their children maintain a physically active lifestyle by providing encouragement and opportunities for physical activity.

Family events can include opportunities for everyone in the family to be active. If physical activity ranks high with the adults of the house, it is more likely to be a priority to the youth. Quality communication time can be created with youth if adults interact in physical activities that both enjoy. Moderate amounts of physical activity can be achieved in a variety of ways. Activities that fit into your lives and vary with frequency, intensity and duration are both healthy and enjoyable.

Community Roles and Responsibilities:

Lincoln and Lancaster County residents can encourage physical activity by:

1. Providing quality, preferably daily, K-12 physical education classes and hiring physical education specialists to teach them.
2. Creating opportunities for physical activities that are enjoyable, that promote adolescents' and young adults' confidence in their ability to be physically active, and that involve friends, peers and parents.
3. Providing appropriate physically active role models for youths.
4. Providing access to school buildings and community facilities that enable safe participation in physical activities.
5. Providing a range of extracurricular programs in schools and community recreation centers to meet the needs and interests of specific adolescent and young adult populations, such as racial and ethnic minority groups, females, persons with disabilities, and low-income groups.
6. Encouraging health care providers to talk routinely to adolescents and young adults about the importance of incorporating physical activity into their lives.

Policy Makers' Roles and Responsibilities:

The Center for Disease Control and Prevention (CDC) provides scientific and technical leadership and assistance to public and private organizations to promote physical activity.

The National Physical Activity Initiative is the primary focus for these efforts and reflects CDC's commitment to reduce the major risk factors for chronic disease in the United States. The Initiative has seven key components: 1) Program research and development, 2) Public information and education, 3) Professional education, 4) Policy and environmental guidelines development, 5) Coordination of leadership, 6) Surveillance and 7) evaluation. Working with this initiative, Lincoln and Lancaster County residents could expect to strengthen youth understanding of physical activity and its value to a healthy future. Community resources to network this initiative include nutrition and physical activity specialists working in cardiovascular risk reduction programs, specialists working in diabetes prevention programs, and comprehensive school health programs.

References:

1. Lincoln-Lancaster County Health Department. "Healthy People 2010: Health Objectives for the Year 2010 for Lincoln and Lancaster County Nebraska." January 2000.

2. National Heart, Lung and Blood Institute. "Obesity Education Initiative: Patient and Public Education Materials." 2000. http://www.nhlbi.nih.gov/health/public/heart/obesity/lose

Body Weight and Weight Loss

The Youth Risk Behavior Survey includes questions on self-perceived weight, current weight loss/gain method, and body weight as it relates to exercise, diet, fasting, diet supplementation, and vomiting and laxative use.

Overall Trends

During the 1990s, reported exercise and dieting for weight loss/control by Lancaster County teens increased, while the percentage of teens reporting that they are overweight changed little (Figure 1).

Teens reporting that they were overweight ("slightly' or "very") changed little from 1991 to 1999, remaining at about one-third of teens in 1999. The percentage of teens reporting that they are currently trying to lose weight also changed little, averaging 41% from 1991-1997 before rising to 45.6% in 1999.

The percentage of teens reporting that they exercised or dieted during the past 30 days to maintain or lose weight increased from 1995 to 1999. There was little change in the percentage of teens reporting that they used dietary supplements, vomited or used laxatives to maintain or lose weight in the past 30 days.

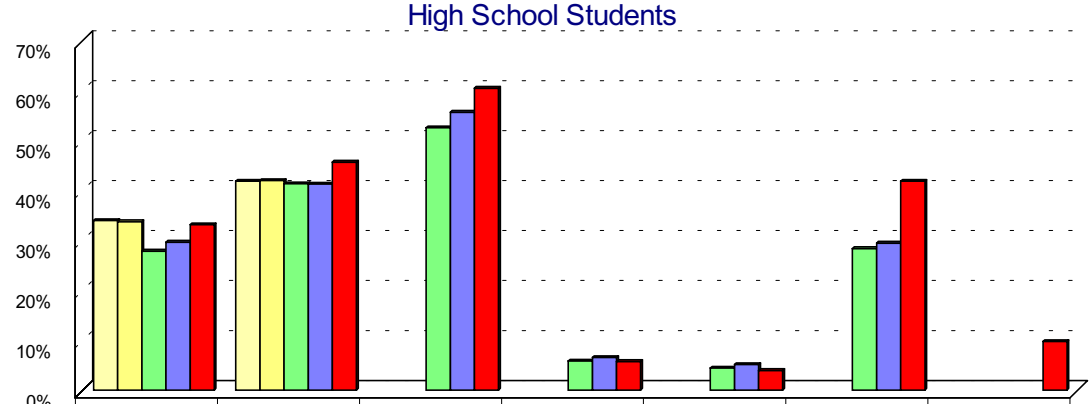
Two new weight-loss questions were added to the YRBS in 1999. First, 41.8% of teens reported that, during the past 30 days, they ate less food, fewer calories, or foods low in fat to lose or maintain weight. In 1997 and 1995, wording on this question was less specific, asking whether teens "dieted" in the past 30 days. Also in 1999, 9.7% of teens reported that, during the past 30 days, they fasted for 24 hours or more to lose or maintain weight.

These trends in reported weight loss behaviors and overweight generally held among respondents of different grades, males and females, and white and non-white teens. See the following pages for detail.

YRBS data for Lancaster County (1991-1999) and Nebraska (1993-1997)[1] indicated little change in reported overweight and weight loss intent, while national trends (1993-1999)[2] showed slight decreases for overweight and and increases in weight loss intent. Reported exercise and dieting increased in Lancaster County and the U.S. Reported vomiting or laxative use remained unchanged in both Lancaster County and the U.S. Reported supplement use increased in the U.S. but remained unchanged in Lancaster County. Nebraska trend data are not yet available for these latter indicators introduced in 1995.

1 Tables published by Buffalo Beach Company, Lincoln, NE
2 Centers for Disease Control and Prevention: Youth Risk Behavior Trends Fact Sheet, <http://www.cdc.gov/nccdphp/dash/yrbs/trend.htm>; *MMWR* Surveillance Summaries 1999, 1997, 1995, 1993.

Figure 1: Body Weight & Weight Loss Behaviors*
High School Students



	Overweight (Slightly or Very)	Currently Trying to Lose Weight	Exercised † Past 30 Days	Took Diet †† Supplements Past 30 Days	Vomited or Used Laxatives † Past 30 Days	Dieted ‡ Past 30 Days	Fasted † Past 30 Days
1991	33.9%	41.8%					
1993	33.7%	41.9%					
1995	27.8%	41.3%	52.5%	5.8%	4.4%	28.3%	
1997	29.6%	41.2%	55.6%	6.5%	5.1%	29.4%	
1999	33.1%	45.6%	60.4%	5.7%	3.9%	41.8%	9.7%

† "to lose weight or keep from gaining weight"
†† "took diet pills, powders, or liquids without a doctor's advice to lose weight (does not include meal replacement products)"
‡ 1999: "ate less food, fewer calories, or foods low in fat to lose weight or keep from gaining weight'
1997, 1995: "dieted"
* Grade Adjusted

Body Weight and Weight Loss

Differences by Gender

During the 1990s, female teens were considerably more likely than male teens to report that they are overweight or that they engage in weight loss behaviors. However, on select measures there were signs of a reduced gender gap (Figs. 2 - 4).

As in earlier years, female teens in 1999 were more likely than male teens to report being overweight and various weight loss behaviors. Large gender gaps were obvious on all indicators **(Fig. 2)**. For example, female teens in 1999 were 3.9 times more likely than male teens to report that during the past 30 days they went without eating for 24 hours or more in order to lose or maintain body weight.

As with teens as a whole **(Fig. 1)**, there was little change by gender in reported weight loss intent over the 1990s **(Fig. 3)**. However, prevalence of reported overweight declined for females from 1991 to 1995, with the effect of a reduced gender gap **(Fig. 3)**.

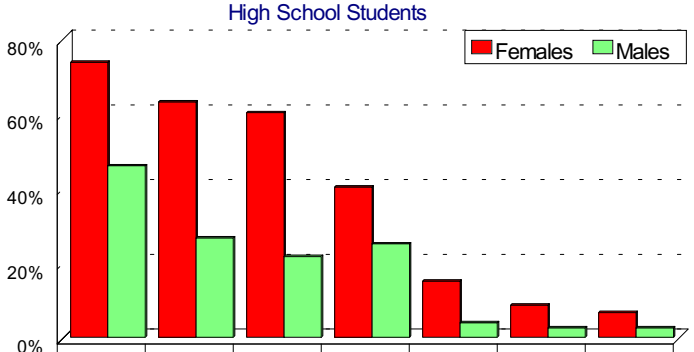
Males increasingly reported exercise in the past month to lose or maintain body weight, from 33.6% in 1995 to 45.9% in 1999 **(Fig. 4)**. Females changed little but remained more likely than males to report exercise to lose weight (73.6% vs. 45.9% in 1999).

Both sexes increasingly reported dieting in the past month to lose or maintain body weight, with females remaining about two-thirds more likely to report dieting (60.1%) than males (21.6%) in 1999 **(Fig. 4)**. This increase may have been affected by a wording change from 1995 and 1997 ("dieted") to 1999 ("ate less food, fewer calories, or foods low in fat").

From 1995 to 1999, there was relatively little change in female reports that, within the past 30 days, they used diet supplements without the advice of a physician (9.7% to 8.6%) or vomited or used laxatives to lose weight (7.9% to 6.6%). There was also little change in male reports on these indicators: diet supplementation (2.0% to 2.5%) and vomiting or using laxatives to lose weight (1.1% to 2.5%).

Figure 2: 1999 Body Weight and Weight Loss*

High School Students



	Exercised P. 30 Days to Change Weight	Currently Trying to Lose Weight	Dieted to Lose or Not Gain Weight P. 30 Days	Overweight (Slight or Very)	Didn't Eat For 24 Hour Period P. 30 Days	Took Diet Supplements No Advice P. 30 Days	Vomit or Laxative to Loose Wt. P. 30 Days
Females	73.6%	63%	60.1%	40.2%	15%	8.6%	6.6%
Males	45.9%	26.6%	21.6%	25%	3.9%	2.5%	2.5%

*Grade Adjusted

Figure 3: Overweight and Weight Loss*

High School Students

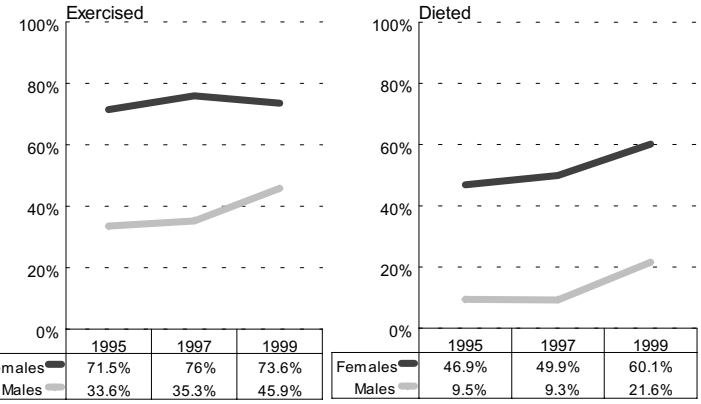
	1991	1993	1995	1997	1999
Females	62.8%	63.1%	59.2%	59.3%	63%
Males	21.3%	19.7%	20.3%	19.1%	26.6%

	1991	1993	1995	1997	1999
Females	46.9%	47.7%	34.9%	37.4%	40.2%
Males	21%	19.1%	19.9%	19.9%	25%

*Grade Adjusted

Figure 4: Exercise and Diet*

High School Students Who Reported Exercising or Dieting to Lose or Maintain Body Weight During the Past 30 Days



	1995	1997	1999
Females	71.5%	76%	73.6%
Males	33.6%	35.3%	45.9%

	1995	1997	1999
Females	46.9%	49.9%	60.1%
Males	9.5%	9.3%	21.6%

*Grade Adjusted

Body Weight and Weight Loss

Differences by Grade

During the 1990s, reports of weight loss intent, exercise and dieting increased among teens in all or most grades. Differences among grades in weight loss behaviors decreased over the period (Figs. 5 - 7).

Trend data for the 1990s did not indicate clear increases or decreases by grade in teen reports of being overweight. In 1990, as in earlier years, reported overweight was similar across grades: 30.7% of 9th graders, 33.5% of 10th graders, 35.0% of 11th graders and 33.0% of 12th graders.

From 1991 to 1999, the percentage of teens reporting that they are currently trying to lose weight appeared to increase among the three oldest grades, although these were not statistically significant increases **(Fig. 5)**.

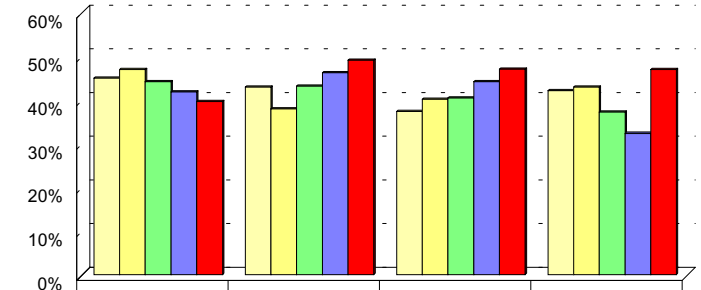
From 1995 to 1999, the percentage of teens who reported exercise during the past 30 days to lose or maintain body weight appeared to increase in each grade though only the increase among 12th graders was statistically significant **(Fig. 6)**. Teens in lower grades tended to be more likely to report exercise to lose/maintain weight; however, by 1999 these differences among grades were no longer noticeable.

Teens in all grades showed marked increases from 1995 to 1999 in reported dieting to lose or maintain weight. The greatest increase occurred among 12th graders: from 25.6% in 1995 to 44.1% in 1999 **(Fig. 7)**. This increase may have been affected by a change in wording from 1995 and 1997 ("dieted") to 1999 ("ate less food, fewer calories, or foods low in fat").

Responses on other weight loss indicators were not large enough to identify clear trends by grade.

Figure 5: Weight Loss By Grade

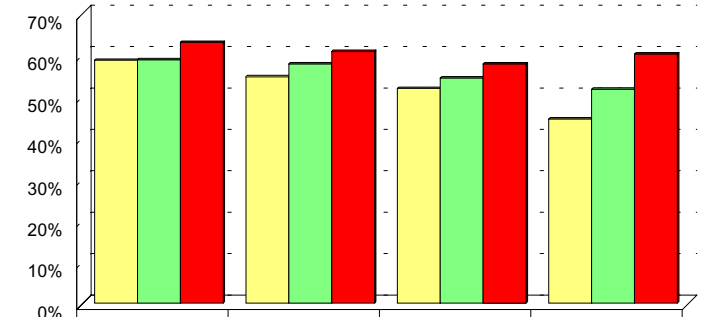
High School Students Who Reported Currently Trying to Lose Weight



	9th	10th	11th	12th
1991	44.9%	42.9%	37.3%	42.1%
1993	46.9%	37.9%	40.1%	42.9%
1995	44.1%	43.1%	40.4%	37.2%
1997	41.8%	46.2%	44.1%	32.3%
1999	39.6%	49%	47%	46.9%

Figure 6: Exercise By Grade

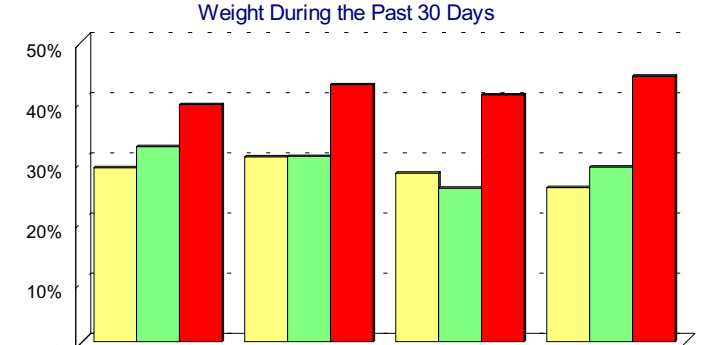
High School Students Who Reported Exercising to Loose or Maintain Body Weight During the Past 30 Days



	9th	10th	11th	12th
1995	58.6%	54.6%	51.8%	44.4%
1997	58.7%	57.7%	54.3%	51.6%
1999	62.9%	60.7%	57.7%	60.1%

Figure 7: Dieted By Grade

High School Students Who Reported Dieting to Lose or Maintain Body Weight During the Past 30 Days



	9th	10th	11th	12th
1995	28.9%	30.7%	28%	25.6%
1997	32.4%	30.8%	25.5%	29%
1999	39.4%	42.7%	41%	44.1%

Body Weight and Weight Loss

Differences by Race

During the 1990s there was little difference between white and non-white teens in reported body weight or weight loss behaviors (Fig. 8).

YRBS sample sizes for major race/ethnic groups (Black, Hispanic, American Indian or Asian) were not large enough to reliably compare these groups or examine trends over time. However, selected comparisons were feasible between white teens and those who may be classified as "non-white" -- of minority race or Hispanic ethnicity.

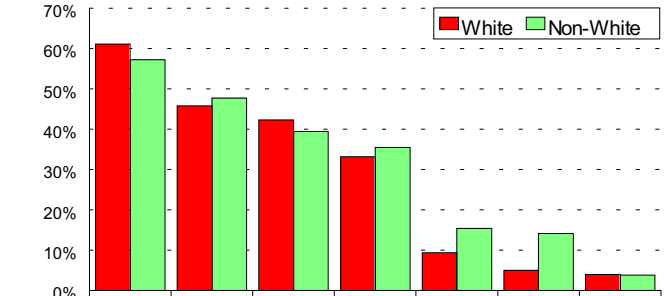
The only statistically significant disparity was between non-white (14.1%) and white (5.0%) teens in reports of taking diet supplements without a doctor's advice, within the past 30 days.

Throughout the 1990s, white and non-white teens were similarly likely to report that they are overweight or currently trying to lose weight **(Fig. 9)**. No significant increase occurred for either group in either indicator from 1991 to 1999.

White and non-white teens were also similarly likely to report that they exercised or dieted to lose or maintain bodyweight **(Fig. 10)**. The percentage of white teens reporting that they exercised to lose or maintain weight increased from 1995 (52.4%) to 1999 (61.1%).

Both white and non-white teens appeared to increasingly report dieting to lose weight, although only the increase among white teens was statistically significant. These increases may have been affected by a change in wording from 1995 and 1997 ("dieted") to 1999 ("ate less food, fewer calories, or foods low in fat") **(Fig. 10)**.

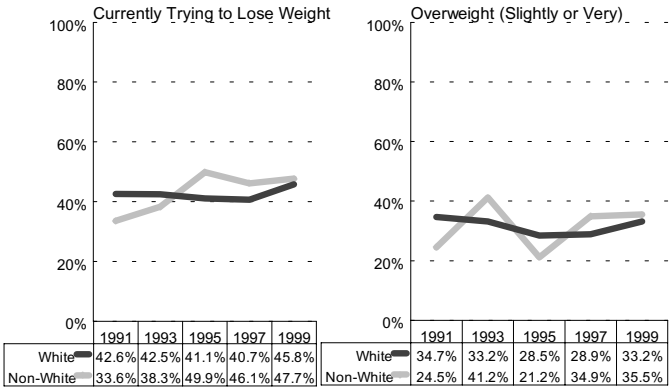
Figure 8: Body Weight and Weight Loss*
1999 High School Students



	Exercised P. 30 Days to Change Weight	Currently Trying to Lose Weight	Diet to Loose or Not Gain Weight P. 30 Days	Overweight (Slight or Very)	Didn't Eat For 24 Hour Period P. 30 Days	Took Diet Supplements No Advice P. 30 Days	Vomit or Laxative to Loose Wt. P. 30 Days
White	61.1%	45.8%	42.3%	33.2%	9.4%	5%	4%
Non-White	57.2%	47.7%	39.4%	35.5%	15.4%	14.1%	3.8%

*Grade Adjusted

Figure 9: Overweight and Weight Control*
High School Students

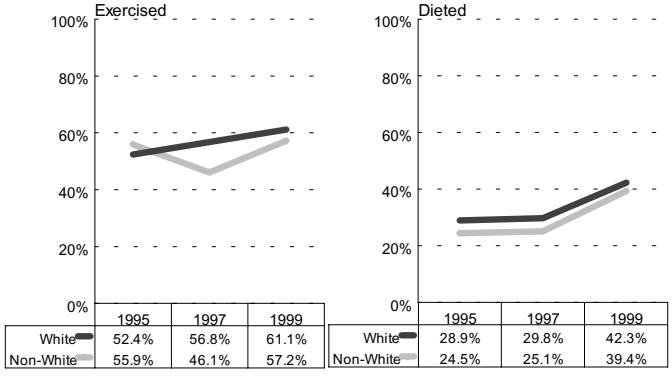


Currently Trying to Lose Weight	1991	1993	1995	1997	1999
White	42.6%	42.5%	41.1%	40.7%	45.8%
Non-White	33.6%	38.3%	49.9%	46.1%	47.7%

Overweight (Slightly or Very)	1991	1993	1995	1997	1999
White	34.7%	33.2%	28.5%	28.9%	33.2%
Non-White	24.5%	41.2%	21.2%	34.9%	35.5%

*Grade Adjusted

Figure 10: Exercise and Diet*
High School Students Who Reported Exercising or Dieting to Lose or Maintain Body Weight During the Past 30 Days



Exercised	1995	1997	1999
White	52.4%	56.8%	61.1%
Non-White	55.9%	46.1%	57.2%

Dieted	1995	1997	1999
White	28.9%	29.8%	42.3%
Non-White	24.5%	25.1%	39.4%

*Grade Adjusted

Body Weight and Weight Loss

Health Objectives for the Year 2010: *Improve the health, fitness, and quality of life of all Lancaster County residents and reduce their chronic disease risk by promoting regular daily physical activity and optimal nutrition status.*

Public Health Discussion

Weight is now viewed as an important health issue. Being overweight is a risk factor for health problems such as diabetes, high blood pressure, high cholesterol and triglycerides, arthritis, gall bladder disease, gynecologic problems, some cancers, and even lung problems. While some people who need to lose weight for their health don't recognize it, others who don't need to lose weight want to get thinner for cosmetic reasons. Successful weight management is a long-term challenge that begins with personal behaviors.[1]

Parental Roles and Responsibilities:

Being overweight is usually the effect of diet and physical activity.

The balance of diet and physical activity varies with each individual and may well need the expertise of a physician and a nutritionist. Youth who know they are overweight as identified by suggested weight guidelines can improve their health by a loss of 5-10 percent of starting weight. It doesn't mean stopping there, but it does mean that an initial goal of losing 5-10 percent of starting weight is both realistic and valuable.

"Establishing good nutrition and physical activity habits at an early age is important for good health throughout life."

Charlotte Burke, MS, RD, Health Educator
Chronic Disease Reduction Program
Lincoln-Lancaster County Health Dept.

Community Roles and Responsibilities:

Behaviors that will help youth lose weight and maintain it:

1. Set the right goals. Most people trying to lose weight focus on weight loss. The most productive areas of focus are on dietary and exercise changes that will lead to weight loss. Effective goals are a) specific, b) attainable and c) forgiving (less than perfect).
2. Nothing succeeds like success. Shaping is a behavioral technique that lets youth select a series of short-term goals that get closer and closer to the ultimate goal by using small steps to reach a distant goal.
3. Reward success. Rewards may be tangible, such as a movie or a music CD, or intangible such as time away from busy schedules. Avoid rewards of extra food.
4. Encourage youth to balance their food checkbook. Self-monitoring is observing or recording of calorie intake, servings of fruits and vegetables, exercise sessions, outcome of behaviors such as weight. Regular weighing of oneself and graphing the weight is helpful in reaching goals. Body water weight will vary from day to day much more than fat weight.

Policy Makers' Roles and Responsibilities:

An increase in physical activity is an important part of a youth's weight managment program.

While bodyweight is a personal matter, community and policy makers can create positive environments for youth to spend time where physical activity is easily accessible, affordable and safe. Community settings might include sports courts, bicycle trails, swimming pools, skating, community gardening, jogging, exercise courses, dances and a host of other places where youth can go individually, or congregate with other youth in both competitive and non-competitive activities and events. While a pricetag usually accompanies physical activity settings, the price of being overweight can also be measured in terms of future productivity in the workplace, health costs, and low self esteem.

References:

1. National Heart, Lung and Blood Institute. "Obesity Education Initiative: Patient and Public Education Materials." 2000. http://www.nhlbi.nih.gov/health/public/heart/obesity/lose

Fact Sheet:
Youth Risk Behavior Trends
From Lancaster County Youth Risk Behavior Surveys
1991, 1993, 1995, 1997, and 1999

Risk Behaviors That Improved, 1991-1999

Indicators for which there was a Significant Difference ($P < .05$) between 1991 and 1999, as well as a consistent change across the period.

Sexual Activity	1991	1993	1995	1997	1999
Ever had sexual intercourse	51.6	44.9	44.2	46.5	36.2
Greater than one sexual partner[1]	34.6	27.2	27.0	24.8	19.2
Currently sexually active[2]	34.8	30.5	29.7	29.0	23.3
Violence					
Carried a weapon[3]	23.2	19.2	18.5	21.0	14.6
Carried a gun[3]	NA	8.0	8.8	8.3	5.1
Carried a weapon on school property[3]	NA	11.0	9.3	9.5	6.0
Absent from school due to feeling unsafe while going to, at, or leaving school[3]	NA	4.6	3.0	3.9	1.5
Threatened or injured with a weapon on school property[4]	NA	10.1	8.1	7.1	6.2
Involved in physical fight[4]	39.9	33.6	30.5	32.7	29.7
Tobacco					
Ever tried smoking[5]	72.8	65.4	66.4	66.7	61.9
Frequent cigarette use[6]	18.3	12.9	14.3	13.5	10.7
Smoked on school property[3]	NA	17.9	18.1	20.1	13.7
Have ever been a regular smoker[7]	36.2	31.4	NA	NA	23.7
Current chew/snuff use[3]	12.1	11.5	10.9	12.0	7.7
Chew/Snuff use on school property[3]	NA	7.3	7.2	5.9	3.5
Alcohol					
First consumed at 12 or younger[8]	32.9	30.2	31.9	25.8	26.0
Alcohol use on school property[3]	NA	6.4	5.4	3.8	3.6
Illegal Drugs					
Ever used inhalants[9]	NA	NA	15.8	15.4	10.9
Ever used a needle to inject illegal drugs	6.5	6.4	2.4	2.9	1.3

Suicide					
Seriously considered suicide[4]	29.3	26.7	22.5	25.4	18.3
Planned how to attempt suicide[4]	21.2	20.8	17.4	14.9	14.8
Attempted suicide[4]	11.1	8.6	8.1	7.2	8.1
Helmet/Seatbelt Use					
Always wear a seatbelt[10]	16.7	33.5	34.5	39.0	36.4
Physical Activity					
Moderate physical activity[11]	NA	19.3	18.1	15.9	28.1
Exercised to strengthen or tone muscles[12]	48.6	57.0	54.7	53.3	58.4
Currently active on sports team[13]	55.2	64.5	65.9	64.5	63.7
Body Weight					
Exercised to lose or maintain weight[3]	NA	NA	52.5	55.6	60.4
Dieted to lose or maintain weight[3]	NA	NA	28.3	29.4	41.8

1 During the individuals lifetime.
2 Engaged in sexual intercourse during the past three months.
3 Engaged in the behavior during the 30 days preceding the survey.
4 Engaged in the behavior during the 12 months preceding the survey.
5 Smoking $\geq$ one puff off of a cigarette.
6 Engaged in the behavior on all 30 of the days preceding the survey.
7 Ever smoked cigarettes for 30 straight days, at any point during the individuals lifetime.
8 Includes alcohol consumption of greater than a few sips.
9 Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high during their lifetime.
10 When riding in a car driven by someone else.
11 Thirty or more minutes or exercise that does not cause one to sweat or breath hard, on five or more of the seven days preceding the survey.
12 On three or more of the seven days preceding the survey.
13 Participated on a sports team (including any teams run by your school or community groups) during the 12 months preceding the survey.

Risk Behaviors That Worsened, 1991-1999

Indicators for which there was a Significant Difference ($P < .05$) between 1991 and 1999, as well as a consistent change across the period.

Illegal Drugs	**1991**	**1993**	**1995**	**1997**	**1999**
Drugs on school property[1]	NA	16.9	28.5	26.9	24.6

1 Students reporting that they were offered, sold, or given illegal drugs on school property, during the 12 months preceding the survey.

Risk Behaviors That Did Not Change or Demonstrated Inconsistent Patterns of Change, 1991-1999

Sexual Activity	1991	1993	1995	1997	1999
Alcohol or drug use prior to last sexual encounter[1]	26.9	24.0	26.9	26.8	28.9
First had sex at 12 or younger[1]	15.7	16.0	15.8	11.5	13.0
Used a condom at last sexual intercourse[1]	54.9	66.5	61.6	59.3	62.3

Violence					
Involved in physical fight that required medical treatment[2]	4.3	4.7	4.2	2.5	3.2
Involved in physical fight on school property[2]	NA	12.4	14.9	12.7	13.1
Tobacco					
Current cigarette use[3]	39.6	32.5	38.8	40.7	34.6
Frequent chew/snuff use[4]	NA	NA	1.7	1.1	1.4
Ever tried to quit smoking[5]	56.3	54.0	59.7	56.4	60.1
Alcohol					
Ever drank alcohol[6]	77.9	78.1	77.7	80.4	79.8
Current alcohol consumption[3]	51.3	50.0	53.9	50.7	47.7
Episodic heavy drinking[7]	35.2	31.2	37.0	35.7	32.6
Rode with drinking driver[3]	40.6	36.8	42.3	37.8	37.1
Drove when drinking[3]	20.1	18.4	22.7	20.9	19.8
Illegal Drugs					
Ever used marijuana	34.2	26.1	36.5	41.0	36.3
Current marijuana use[3]	17.3	14.1	22.5	24.6	18.3
Marijuana use on school property[3]	NA	4.3	7.9	5.6	4.5
Ever used cocaine[8]	5.8	4.5	4.7	9.4	5.6
Current cocaine use[9]	1.3	2.1	2.1	3.6	1.7
Ever used steroids[10]	3.2	3.2	3.3	2.4	2.0
Suicide					
Needed medical attention due to suicide attempt[11]	2.6	2.6	3.8	2.5	1.6
Helmet/Seatbelt Use					
Never or rarely wore a motorcycle helmet[12]	39.3	40.8	38.9	42.0	35.9
Never or rarely wore a bicycle helmet[13]	98.1	95.0	94.5	92.1	90.8
Physical Activity					
Vigorous physical activity[14]	67.9	69.0	68.4	63.5	67.6
Currently enrolled in PE class[15]	42.3	41.8	40.2	34.6	41.1
Attend PE class daily[16]	34.2	35.7	34.6	27.8	36.8

Exercise more than 20 minutes in PE class[17]	81.1	86.9	81.9	86.8	83.3
Body Weight					
Overwieght[18]	33.9	33.7	27.8	29.6	33.1
Currently trying to lose weight	41.8	41.9	41.3	41.2	45.6
Current diet supplement use[19]	NA	NA	5.8	6.5	5.7
Currently vomiting or using laxatives for weight loss[3]	NA	NA	4.4	5.1	3.9

1 Out of those students who reported they have ever had sexual intercourse during their lifetime.
2 Engaged in the behavior during the 12 months preceding the survey.
3 Engaged in the behavior during the 30 days preceding the survey.
4 Engaged in the behavior on all 30 of the days preceding the survey.
5 Out of those students who reported smoking during the 30 days preceding the survey.
6 Greater than or equal to one drink of alcohol.
7 Had five or more drinks of alcohol in a row, that is, within a couple of hours, during the 30 days preceding the survey.
8 Used any form of cocaine, including powder, crack, or freebase during their lifetime.
9 Used any form of cocaine, including powder, crack, or freebase during the 30 days preceding the survey.
10 Took steroid pills or shots without a doctor s prescription during their lifetime.
11 Attempted suicide during the 12 months preceding the survey which resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.
12 Out of those students that reported riding a motorcycle during the 12 months preceding the survey.
13 Out of those students that reported riding a bicycle during the 12 months preceding the survey.
14 Twenty or more minutes of exercise that causes one to sweat or breath hard, on three or more of the days preceding the survey.
15 Students reporting that during an average week, they went to physical education class one or more days.
16 Students reporting that during an average week, they went to physical education class on all five school days.
17 Out of those students who reported that they are currently enrolled in physical education class.
18 Students who reported describing their weight as slightly or very overweight.
19 Took diet pills, powders, or liquids without a doctor s advice to lose weight (not including meal replacement products such as Slim Fast) during the 30 days preceding the survey.

TABLE 1

ALCOHOL USE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Consumed Alcohol Within the Past 30 Days					Consumed Five or More Drinks in a Row Within the Past 30 Days					Drove After Drinking Alcohol Within the Past 30 Days				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	51.3	50.0	53.9	50.7	47.7	35.2	31.2	37.0	35.7	32.6	20.1	18.4	22.7	20.9	19.8
Male*	52.1	49.9	54.7	52.4	48.7	37.7	32.4	39.6	38.5	34.1	21.5	22.3	25.5	25.5	23.9
Female*	50.8	50.0	52.9	50.6	46.7	32.8	29.9	33.8	35.1	31.1	19.0	14.7	19.6	17.7	15.9
White*	52.5	50.5	54.4	51.1	48.3	36.4	31.6	37.2	36.3	33.8	21.2	18.3	23.1	21.3	19.9
Non-White or Hispanic*	40.6	46.6	52.5	53.4	46.8	24.0	27.9	34.6	33.7	21.9	10.0	21.2	19.7	21.6	21.4
GRADE 9th	42.5	42.2	47.4	48.2	38.2	27.8	23.6	29.5	30.4	22.4	9.3	9.2	12.9	11.9	6.9
10th	44.8	48.9	48.1	45.4	45.6	28.1	29.6	32.7	29.2	29.8	13.6	13.3	19.0	13.1	14.6
11th	58.3	54.1	52.0	48.4	55.2	39.7	34.2	38.4	32.6	38.8	27.0	23.7	27.6	24.2	26.6
12th	60.3	55.0	69.1	61.3	52.1	45.8	37.8	48.1	51.6	39.9	31.4	28.1	31.9	35.5	31.9

** Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 2

TOBACCO/MARIJUANA USE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Smoked Cigarettes Within the Past 30 Days					Smoked Cigarettes Every Day Within the Past 30 Days					Ever Used Marijuana				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	39.6	32.5	38.8	40.7	34.6	18.3	12.9	14.3	13.5	10.7	34.2	26.1	36.5	41.0	36.3
Male*	40.2	31.7	38.8	41.0	33.9	20.1	14.8	15.8	13.8	11.6	38.7	31.3	40.5	45.4	37.9
Female*	39.0	33.2	38.3	41.1	35.2	16.2	10.8	12.8	13.2	10.0	29.7	21.0	32.7	37.3	34.9
White*	39.9	33.1	39.1	41.6	34.3	18.0	12.8	14.4	13.7	11.0	33.2	25.3	35.1	41.0	35.9
Non-White or Hispanic*	36.7	28.1	34.7	34.9	38.9	21.5	14.1	13.4	16.5	9.3	43.0	37.1	46.7	43.4	42.7
GRADE 9th	32.9	26.6	38.0	39.1	24.3	13.0	9.2	13.6	9.6	4.8	26.8	19.6	34.6	39.4	27.1
10th	32.4	31.0	31.0	30.8	31.7	15.7	10.3	10.6	11.5	7.8	27.8	21.0	27.3	33.8	31.6
11th	45.6	37.0	42.3	38.9	40.8	21.6	13.2	16.7	13.7	16.8	38.7	31.5	38.6	40.0	39.3
12th	47.9	35.7	44.2	54.8	42.0	23.1	19.1	16.6	19.4	13.7	44.2	32.9	46.2	51.6	47.9

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 3

DRUG USE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Used Marijuana Within the Past 30 Days					Ever Used Cocaine					Used Cocaine Within the Past 30 Days				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	17.3	14.1	22.5	24.6	18.3	5.8	4.5	4.7	9.4	5.6	1.3	2.1	2.1	3.6	1.7
Male*	20.8	18.4	25.2	29.0	19.1	7.1	5.7	5.7	12.2	5.9	1.9	3.0	2.6	5.4	2.0
Female*	13.6	9.7	19.3	19.6	17.8	4.5	3.2	3.8	6.5	5.4	0.7	1.1	1.6	1.8	1.4
White*	16.8	13.8	21.3	23.7	17.6	5.6	4.0	3.9	9.3	5.3	1.4	1.7	2.0	3.4	1.3
Non-White or Hispanic*	21.6	19.3	29.7	34.9	27.7	8.1	11.6	10.7	14.5	8.8	0.7	5.7	2.5	5.9	5.5
GRADE 9th	13.1	10.7	24.2	25.3	13.7	5.0	6.1	7.3	5.8	4.5	1.8	4.0	3.1	2.6	1.9
10th	15.7	11.1	14.8	19.2	16.5	5.0	2.2	3.7	4.6	4.4	1.4	1.1	1.9	3.1	0.5
11th	19.1	17.8	21.5	22.1	20.9	4.4	4.6	4.5	11.6	7.1	0.5	1.4	1.6	5.3	2.2
12th	21.5	16.8	29.8	32.3	22.5	9.1	5.2	3.3	16.1	6.6	1.7	1.7	1.7	3.2	2.3

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 4

DRUG USE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Ever Inhaled Drugs					Ever Used Methamphetamine					Ever Injected Drugs				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	*Not included in the 1991 or 1993 surveys.*		15.8	15.4	10.9	*Not included in the 1991, 1993, 1995, or 1997 surveys*				7.4	6.5	6.4	2.4	2.9	1.3
Male*			15.8	13.7	11.2					7.0	6.5	8.6	2.7	3.8	1.5
Female*			15.7	17.1	10.6					7.8	6.6	4.5	2.2	3.4	1.1
White*			15.6	15.1	10.2					6.9	6.2	6.5	2.1	3.1	0.9
Non-White or Hispanic*			16.3	19.6	17.8					13.5	10.4	5.7	4.7	0.6	4.7
GRADE 9th			23.6	20.9	13.2					7.2	7.7	8.3	4.2	0.6	1.7
10th			12.2	13.8	10.2					4.4	5.3	4.4	1.4	4.6	1.0
11th			12.6	16.8	13.7					9.3	4.9	6.4	2.4	3.2	1.1
12th			14.8	9.7	6.1					8.9	8.3	6.6	1.6	3.2	1.4

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 5

VIOLENCE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Been Involved in a Physical Fight Within the Past 12 Months					Carried a Weapon (gun, knife, or club) Within the Past 30 Days					Carried a Gun Within the Past 30 Days				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	39.9	33.6	30.5	32.7	29.7	23.2	19.2	18.5	21.0	14.6	*Not Included in the 1991 survey.*	8.0	8.8	8.3	5.1
Male*	52.1	45.5	40.8	39.8	41.7	38.9	32.4	29.3	34.8	27.3		14.8	14.9	15.1	10.2
Female*	27.1	21.8	20.6	27.5	18.7	7.2	6.6	7.3	8.0	4.0		1.4	2.9	1.6	0.4
White*	38.9	32.2	28.6	31.7	29.7	22.5	18.6	16.7	20.2	15.1		7.4	8.1	8.1	4.8
Non-White or Hispanic*	47.4	48.1	48.9	42.7	29.9	30.1	26.2	38.4	31.1	16.8		14.3	16.9	15.4	8.0
GRADE 9th	49.4	42.0	38.4	43.9	37.5	29.3	24.8	22.8	19.9	16.7		11.9	10.4	6.4	3.9
10th	36.3	34.8	30.6	29.2	30.6	23.2	15.9	15.7	18.5	12.9		4.1	7.9	6.9	5.8
11th	40.2	27.8	25.5	31.6	32.1	21.7	18.7	17.9	20.0	17.9		8.7	8.1	10.5	6.0
12th	33.1	29.4	27.5	25.8	17.8	18.2	17.3	17.6	25.8	10.8		7.4	8.8	9.7	4.7

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 7

HELMET AND SEATBELT USE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Always Wear a Seatbelt When Riding in Car Driven by Someone Else					Never or Rarely Wear a Helmet (Motorcycle Riders)					Never or Rarely Wear a Helmet (Bicycle Riders)				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	16.7	33.5	34.5	39.0	36.4	39.3	40.8	38.9	42.0	35.9	98.1	95.0	94.5	92.1	90.8
Male*	14.2	26.2	31.7	36.0	31.6	44.4	43.1	43.1	66.2	46.7	96.8	93.3	92.7	91.7	92.6
Female*	19.2	40.9	37.7	42.6	41.0	31.1	37.4	29.6	26.6	20.1	99.3	96.6	97.0	92.8	89.1
White*	17.2	34.0	34.8	40.4	37.7	38.4	40.9	35.7	43.7	34.7	98.0	94.8	94.6	92.8	90.4
Non-White or Hispanic*	11.8	28.1	28.8	20.1	23.0	49.8	38.2	73.7	21.2	39.0	97.8	97.6	94.2	90.3	94.4
GRADE 9th	14.2	29.4	27.0	27.9	33.5	40.9	44.6	38.9	43.1	37.4	98.6	96.7	93.9	91.2	88.8
10th	19.9	35.2	35.8	45.4	34.0	39.7	37.3	44.7	60.0	30.0	98.3	95.6	93.1	91.2	93.6
11th	15.8	28.8	37.2	37.9	38.6	32.4	35.8	48.7	25.0	45.7	97.5	94.9	96.5	89.9	89.3
12th	16.8	41.1	38.1	45.2	39.9	44.4	46.0	22.2	40.0	30.0	97.8	92.5	94.5	96.2	91.7

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 6

SUICIDE
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Seriously Considered Suicide Within the Past 12 Months					Made a Plan to Attempt Suicide Within the Past 12 Months					Attempted Suicide Within the Past 12 Months				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	29.3	26.7	22.5	25.4	18.3	21.2	20.8	17.4	14.9	14.8	11.1	8.6	8.1	7.2	8.1
Male*	20.0	22.3	13.9	20.7	13.0	16.9	19.2	12.5	12.7	13.1	6.1	6.9	6.2	6.1	7.2
Female*	38.9	33.2	30.1	29.2	23.2	25.7	22.1	21.8	16.3	16.3	16.2	10.0	10.1	7.8	9.0
White*	28.8	25.8	22.3	25.2	18.1	20.9	20.0	16.9	15.2	14.6	10.4	7.6	6.8	7.0	7.5
Non-White or Hispanic*	34.8	36.4	18.0	27.8	20.0	24.8	28.7	18.5	10.5	16.9	18.3	18.8	7.8	8.4	14.2
GRADE 9th	29.4	30.5	25.9	25.1	17.5	22.8	23.6	21.7	17.1	13.6	14.3	13.5	15.2	10.6	13.2
10th	32.5	25.7	21.9	25.4	18.9	24.6	20.7	19.0	14.6	11.2	12.8	7.0	8.8	8.5	5.3
11th	26.0	26.1	22.0	25.3	20.7	17.6	20.1	15.9	17.9	17.9	8.8	7.3	4.5	6.3	7.7
12th	29.2	24.5	19.9	25.8	15.9	19.8	18.8	12.6	9.7	16.4	8.3	6.5	3.8	3.2	6.1

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 8

SEXUAL BEHAVIOR
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Ever Had Sex					Had More than One Sex Partner					Had Sex Within the Past Three Months				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	51.6	44.9	44.2	46.5	36.2	34.6	27.2	27.0	24.8	19.2	34.8	30.5	29.7	29.0	23.3
Male*	56.1	49.7	45.1	49.1	37.7	38.6	31.5	28.4	26.0	20.9	34.3	32.2	28.8	29.8	22.7
Female*	47.0	39.5	43.5	43.8	34.6	30.5	22.8	25.8	23.8	17.4	36.8	27.5	31.1	28.5	23.9
White*	51.0	43.9	42.0	44.8	35.0	33.8	26.0	25.4	21.4	18.2	34.8	30.6	28.5	26.4	22.6
Non-White or Hispanic*	58.5	56.9	63.9	58.7	50.8	42.8	41.1	41.9	47.8	30.4	35.0	31.5	39.8	45.8	32.3
GRADE 9th	43.4	33.7	35.5	31.3	20.7	27.3	23.3	17.5	17.8	10.8	23.3	20.5	19.7	18.1	11.4
10th	44.4	35.2	35.8	34.6	29.9	25.9	19.7	19.9	14.6	18.0	28.6	24.6	23.3	21.5	21.9
11th	58.8	51.1	50.0	44.7	40.8	42.6	24.9	28.5	24.5	19.6	39.7	33.6	34.7	27.7	24.5
12th	60.3	60.6	57.3	77.4	54.7	43.0	41.7	43.1	43.3	28.9	48.3	44.3	41.7	50.0	36.3

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 9

SEXUAL BEHAVIOR
High School Students Who Have Had Sex

PERCENT OF COHORT WHO REPORTED HAVING:	Drank Alcohol or Used Drugs Before Having Sex the Last Time					Used a Condom the Last Time They Had Sex					First Had Sex at 12 or Younger				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	26.9	24.0	26.9	26.8	28.9	54.9	66.5	61.6	59.3	62.3	15.7	16.0	15.8	11.5	13.0
Male*	28.6	25.6	30.0	23.5	31.9	61.1	73.5	67.2	58.2	65.5	20.0	20.0	20.4	16.6	15.1
Female*	25.1	21.3	24.4	31.1	26.2	46.7	61.8	55.9	58.8	60.2	10.1	10.8	4.8	6.7	11.1
White*	27.5	24.1	26.7	23.8	29.3	54.9	68.0	61.8	59.0	62.9	14.1	14.3	13.7	9.6	11.0
Non-White or Hispanic*	22.8	24.3	35.2	57.8	23.5	55.0	56.7	64.2	65.3	62.9	25.2	32.5	31.8	14.7	26.0
GRADE 9th	28.5	31.7	26.1	32.6	25.5	58.1	69.2	72.6	63.7	68.0	33.1	30.3	34.5	23.3	25.0
10th	28.9	26.0	28.4	37.5	23.3	54.8	77.4	58.1	64.9	68.3	13.7	9.5	12.0	5.1	10.0
11th	20.8	16.1	30.8	23.1	36.1	53.3	56.4	61.7	64.1	59.7	8.5	14.3	10.1	12.8	12.2
12th	29.6	21.3	22.2	13.0	30.7	53.4	63.0	53.5	43.5	52.6	6.8	9.3	6.0	4.3	4.4

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

SAMPLE SIZES
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	N* (Total Students Surveyed)					N* (Total Students Surveyed: Those Who Have Had Sex)				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS	1019	1051	938	569	1145	494	460	402	207	366
Male	517	511	459	263	549	214	208	205	105	181
Female	495	538	476	305	593	280	250	194	102	182
White	912	959	834	505	1021	438	407	339	175	316
Non-White or Hispanic	98	92	100	62	114	56	53	62	31	48
GRADE 9th	401	327	289	311	539	173	110	98	96	111
10th	281	271	216	130	206	124	95	77	45	61
11th	204	219	247	95	184	120	112	122	42	75
12th	121	231	182	31	213	73	140	102	24	116

** Ns may vary across categories due to missing cases.*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

RELATIONSHIPS AMONG HIGH RISK BEHAVIORS*

High School Students: 1999

Of those who:	PERCENT WHO ALSO:	Had Five or More Drinks in a Row, Past 30 Days	Drove After Drinking Alcohol, Past 30 Days	Smoked Cigarettes Every Day, Past 30 Days	Used Marijuana, Past 30 Days	Ever Used Cocaine	Had Sex, Past 3 Months	Used Condom w/Last Sex (Of those who have had sex)	Carried a Weapon, Past 30 Days	Involved in Physical Fight, Past 12 Months	Seriously Considered Suicide, Past 12 Months
32.6% n=338	Had Five or More Drinks in Row Past 30 Days		45.8	23.4	44.8	13.5	42.4	62.9	24.6	47.4	27.5
19.8% n=184	Drove After Drinking Alcohol Past 30 Days	84.0		27.3	48.9	18.9	43.6	59.7	33.3	57.1	28.9
10.7% n=102	Smoked Cigarettes Every Day Past 30 Days	76.6	47.6		70.5	34.0	59.7	57.7	32.2	58.8	35.0
18.3% n=194	Used Marijuana Past 30 Days	79.5	49.0	37.8		23.1	54.0	65.1	27.2	57.0	31.3
5.6% n=60	Ever Used Cocaine	77.8	58.2	58.1	75.5		68.9	53.3	30.0	73.5	32.6
23.3% n=228	Had Sex Past 3 Months	61.7	38.9	27.5	45.3	18.7		59.3	23.4	53.4	32.1
62.3% n=214	Used Condom w/Last Sex (Of those who have had sex)	55.9	36.0	21.2	40.8	13.5	63.3		22.0	48.2	27.3
14.6% n=177	Carried a Weapon, Past 30 Days	50.2	35.6	20.8	31.3	10.8	33.3	58.0		60.5	21.9
29.7% n=362	Involved in Physical Fight, Past 12 Months	51.8	36.9	20.2	34.9	14.4	39.0	62.6	31.5		26.0
18.3% n=205	Seriously Considered Suicide, Past 12 Months	47.9	30.7	20.3	31.2	10.1	39.7	59.1	18.5	42.2	

* *All Percentages Represent Grade Adjusted Data* - See Introduction of this report for an explanation of grade-adjustment

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1999

TABLE 11

BODY WEIGHT
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Overweight (Slightly or Very)					Currently Trying to Lose Weight					Dieted to Lose or Not Gain Weight in Past 30 Days				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	33.9	33.7	27.8	29.6	33.1	41.8	41.9	41.3	41.2	45.6	*Not included in the 1991 or 1993 surveys.*		28.3	29.4	41.8
Male*	21.0	19.1	19.9	19.9	25.0	21.3	19.7	20.3	19.1	26.6			9.5	9.3	21.6
Female*	46.9	47.7	34.9	37.4	40.2	62.8	63.1	59.2	59.3	63.0			46.9	49.9	60.1
White*	34.7	33.2	28.5	28.9	33.2	42.6	42.5	41.1	40.7	45.8			28.9	29.8	42.3
Non-White or Hispanic*	24.5	41.2	21.2	34.9	35.5	33.6	38.3	49.9	46.1	37.7			24.5	25.1	36.4
GRADE 9th	34.7	37.5	31.1	31.9	30.7	44.9	46.9	44.1	41.8	39.6			28.9	32.4	39.4
10th	35.1	28.6	27.3	33.3	33.5	42.9	37.9	43.1	46.2	49.0			30.7	30.8	42.7
11th	31.0	35.3	27.9	33.3	35.0	37.3	40.1	40.4	44.1	47.0			28.0	25.5	41.0
12th	34.7	33.3	24.9	19.4	33.0	42.1	42.9	37.2	32.3	46.9			25.6	29.0	44.1

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

TABLE 10

PHYSICAL ACTIVITY
High School Students

PERCENT OF COHORT WHO REPORTED HAVING:	Vigorous Physical Activity on Three or More of the Previous Seven Days					Moderate Physical Activity on Five or More of the Previous Seven Days					Exercised to Strengthen Muscles on Three or More of the Previous Seven Days				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS*	67.9	69.0	68.4	63.5	67.6	*Not Included in the 1991 survey.*	19.3	18.1	15.9	28.1	48.6	57.0	54.7	53.3	58.4
Male*	75.7	73.4	77.2	65.3	74.8		21.1	21.0	17.6	31.2	58.1	65.0	60.3	60.2	63.6
Female*	60.1	64.4	59.9	63.2	61.1		17.4	15.3	15.2	25.1	38.9	48.9	49.6	48.2	52.1
White*	68.6	68.7	69.0	63.6	68.5		19.4	17.5	15.9	28.6	49.1	56.8	55.4	54.0	58.4
Non-White or Hispanic*	60.8	72.6	61.6	61.8	60.9		18.5	23.2	12.7	20.8	42.0	58.7	43.8	44.0	57.9
GRADE 9th	76.6	76.9	75.7	79.9	77.7		30.2	30.2	27.8	32.6	56.6	64.3	61.3	59.9	63.5
10th	66.7	70.3	65.9	62.3	66.3		15.2	13.1	10.2	26.3	48.0	54.1	53.5	51.9	63.1
11th	65.3	63.1	70.2	56.4	63.5		15.3	16.5	9.6	23.8	46.3	55.3	53.1	49.5	55.2
12th	62.8	65.5	61.3	54.8	62.7		16.2	12.2	16.1	29.7	43.0	54.1	50.8	51.6	51.2

**Represents Grade Adjusted Data*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999

SAMPLE SIZES
High School Students Who Rode a Motorcycle or Bicycle

PERCENT OF COHORT WHO REPORTED HAVING:	N* (Total Students Surveyed: Those Who Reported Riding a Motorcycle Within Past 12 Months)					N* (Total Students Surveyed: Those Who Reported Riding a Bicycle Withing Past 12 Months)				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
ALL STUDENTS	322	278	214	122	244	837	831	721	493	928
Male	213	185	137	74	147	435	397	358	228	463
Female	109	93	76	48	97	402	433	361	265	463
White	301	254	188	110	226	762	773	654	445	833
Non-White or Hispanic	21	24	28	12	17	73	58	64	48	87
GRADE 9th	127	92	72	72	107	348	271	244	273	482
10th	78	67	47	25	50	237	228	175	114	156
11th	68	67	39	20	46	158	157	172	79	121
12th	45	50	54	5	40	89	173	127	26	168

** Ns may vary across categories due to missing cases.*

Lincoln-Lancaster County Health Department, Youth Risk Behavior Survey: 1991, 1993, 1995 ,1997, and 1999